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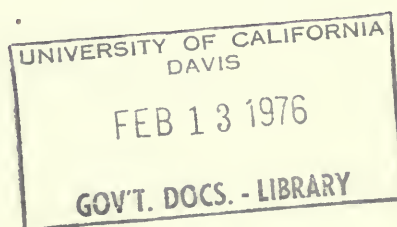
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HYDROLOGIC DATA: 1974

Volume III: CENTRAL COASTAL AREA



DECEMBER 1975

CLAIRE T. DEDRICK  
Secretary for Resources  
The Resources Agency

EDMUND G. BROWN JR.  
Governor  
State of California

RONALD B. ROBIE  
Director  
Department of Water Resources



STATE OF CALIFORNIA  
The Resources Agency  
Department of Water Resources

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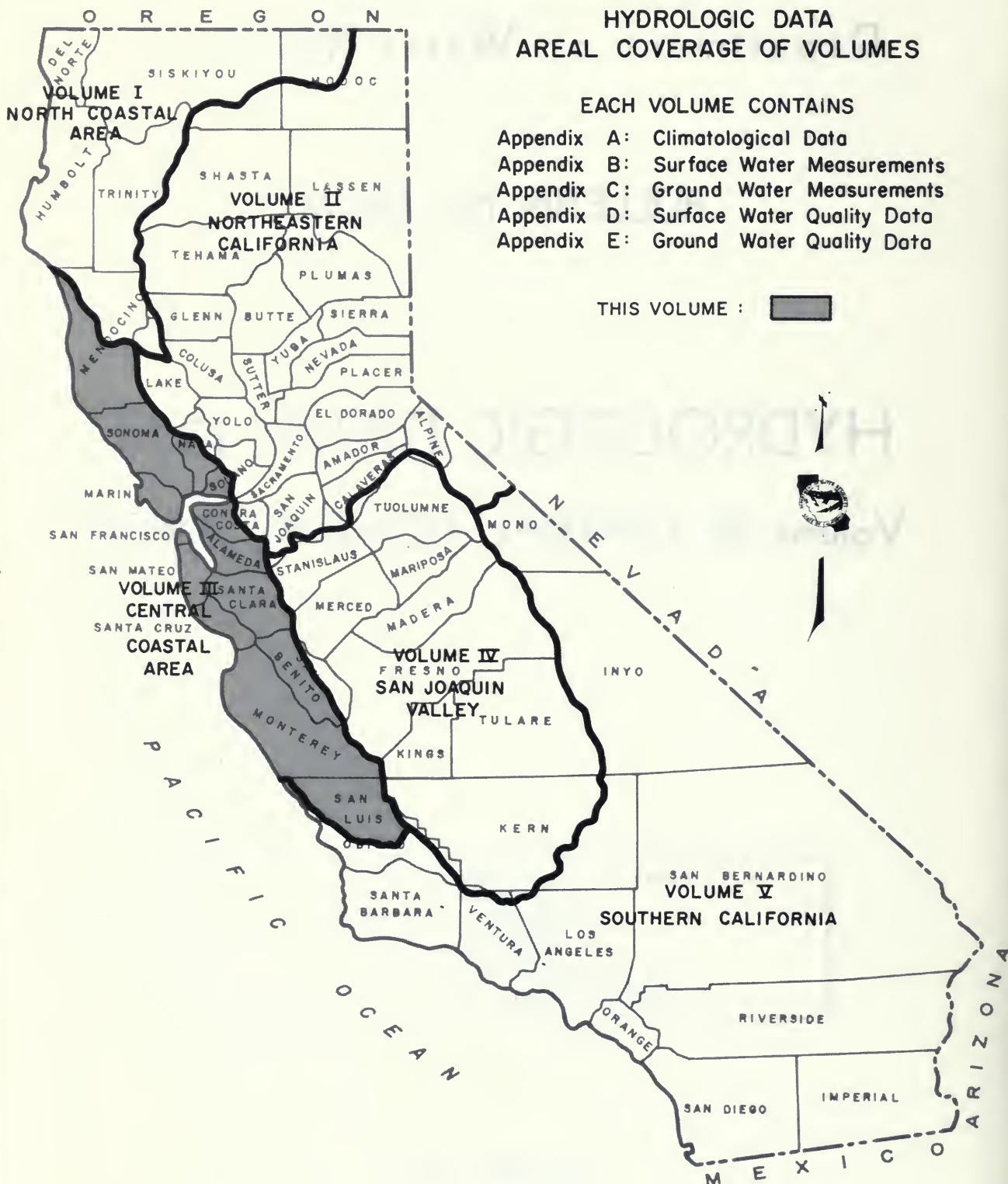
RONALD B. ROBIE  
Director  
Department of Water Resources

# HYDROLOGIC DATA AREAL COVERAGE OF VOLUMES

## EACH VOLUME CONTAINS

- Appendix A: Climatological Data
- Appendix B: Surface Water Measurements
- Appendix C: Ground Water Measurements
- Appendix D: Surface Water Quality Data
- Appendix E: Ground Water Quality Data

THIS VOLUME :



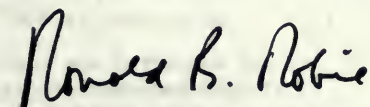


## FOREWORD

The hydrologic data programs of the Department of Water Resources supplement the data collection activities of other agencies and help satisfy the needs for data on the quality and quantity of water in the State. Bulletin No. 130-74 presents accurate, comprehensive, and timely hydrologic data which provide a more complete knowledge of the factors affecting our environment and are prerequisites for effective management of the State's water resources.

The Bulletin No. 130 series is published annually in five volumes. Each volume presents hydrologic data for one of five reporting areas of the State. These areas are delineated on the map on the opposite page.

Volume III contains data on climate, surface water flow, ground water levels, and surface and ground water quality in the Central Coastal Area for the 1973-74 water year. Figures show the location of climatological observation stations and ground water basins; the fluctuation of average ground water level in wells; the location of surface water measurement and surface water quality stations; and hydrographic unit boundaries.



Ronald B. Robie, Director  
Department of Water Resources  
The Resources Agency  
State of California

## CONVERSION FACTORS

### English to Metric System of Measurement

<u>Quantity</u>	<u>English unit</u>	<u>Multiply by*</u>	<u>To get metric equivalent</u>
Length	inches (in)	25.4	millimetres (mm)
		.0254	metres (m)
	feet (ft)	.3048	metres (m)
	miles (mi)	1.6093	kilometres (km)
Area	square inches (in <sup>2</sup> )	$6.4516 \times 10^{-4}$	square metres (m <sup>2</sup> )
	square feet (ft <sup>2</sup> )	.092903	square metres (m <sup>2</sup> )
	acres	4046.9	square metres (m <sup>2</sup> )
		.40469	hectares (ha)
		.40469	square hectometres (hm <sup>2</sup> )
		.0040469	square kilometres (km <sup>2</sup> )
	square miles (mi <sup>2</sup> )	2.590	square kilometres (km <sup>2</sup> )
Volume	gallons (gal)	3.7854	litres (l)
		.0037854	cubic metres (m <sup>3</sup> )
	million gallons (10 <sup>6</sup> gal)	3785.4	cubic metres (m <sup>3</sup> )
	cubic feet (ft <sup>3</sup> )	.028317	cubic metres (m <sup>3</sup> )
	cubic yards (yd <sup>3</sup> )	.76455	cubic metres (m <sup>3</sup> )
	acre-feet (ac-ft)	1233.5	cubic metres (m <sup>3</sup> )
		.0012335	cubic hectometres (hm <sup>3</sup> )
		$1.233 \times 10^{-6}$	cubic kilometres (km <sup>3</sup> )
Volume/Time (Flow)	cubic feet per sec (ft <sup>3</sup> /s)	28.317	litres per second (l/s)
		.028317	cubic metres per sec (m <sup>3</sup> /s)
	gallons per minute (gal/min)	.06309	litres per second (l/s)
		$6.309 \times 10^{-5}$	cubic metres per sec (m <sup>3</sup> /s)
	million gallons per day (mgd)	.043813	cubic metres per sec (m <sup>3</sup> /s)
Water Usage	acre-feet per acre	.3048	cubic metres per square metre (m <sup>3</sup> /m <sup>2</sup> )
Mass	pounds (lb)	.45359	kilograms (kg)
	tons (short, 2,000 lb)	.90718	tonne (t)
		907.18	kilograms (kg)
Power	horsepower (hp)	0.7460	kilowatts (kW)
Pressure	pounds per square inch (psi)	6894.8	pascal (Pa)

\* For greater accuracy, use conversion factors in "Metric Practice Guide"  
(American Society for Testing and Materials, E 380-72).



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Edmund G. Brown Jr., Governor

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Claire T. Dedrick, Secretary for Resources

DEPARTMENT OF WATER RESOURCES  
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### Federal

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U. S. Army, Corps of Engineers  
U. S. Army, Post Engineer, Fort Ord  
U. S. Bureau of Reclamation  
U. S. Coast Guard  
U. S. Geological Survey  
U. S. Soil Conservation Service

### State

Department of Health  
Department of Veterans Affairs  
Division of Highways  
Division of Forestry  
Regional Water Quality Control Board,  
Central Coast Region, North Coast  
Region, and San Francisco Bay Region  
University of California,  
Agricultural Extension Service  
Water Resources Control Board

### Local

Alameda County Flood Control and  
Water Conservation District  
Alameda County Water District  
City of San Francisco  
City of Vallejo  
East Bay Municipal Utility District  
Marin County  
Mendocino County  
Monterey County Flood Control and  
Water Conservation District  
Napa County Flood Control and  
Water Conservation District  
San Benito County  
San Luis Obispo County Flood Control  
and Water Conservation District  
Santa Clara Valley Water District  
Santa Cruz County  
Solano Irrigation District  
Sonoma County Flood Control and  
Water Conservation District  
South Santa Clara Valley Water  
Conservation District



Department of Agriculture  
Bureau of Plant Industry  
Washington, D. C.

REPORT

ON THE

PLANT LIFE OF THE  
MOUNTAINS OF THE  
WESTERN UNITED STATES

BY  
DR. H. W. HALE

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## INTRODUCTION

This bulletin contains data regarding climate, surface water, ground water levels, and surface and ground water quality. The data were collected by the Department of Water Resources and by various organizations cooperating with the Department.

The Department's files contain some data that currently are not being published. Inquiries regarding local data should be directed to the District Offices listed as follows:

Central District  
P. O. Box 9137  
3251 S Street  
Sacramento, CA 95816

San Joaquin District  
P. O. Box 5710  
3374 East Shields Avenue  
Fresno, CA 93755

Northern District  
P. O. Box 607  
2440 Main Street  
Red Bluff, CA 96080

Southern District  
P. O. Box 6598  
849 South Broadway  
Los Angeles, CA 90055

Inquiries regarding statewide data should be directed to the Division Office:

Division of Planning  
P. O. Box 388  
1416 Ninth Street  
Sacramento, CA 95802

Federal and local agencies also are maintaining substantial data files. A partial listing follows:

### Federal Agencies

U. S. Army, Corps of Engineers  
Sacramento District  
650 Capitol Mall  
Sacramento, CA 95814

U. S. Army, Corps of Engineers  
San Francisco District  
100 McAllister Street  
San Francisco, CA 94102

U. S. Department of the Interior  
Geological Survey  
Water Resources Division  
855 Oak Grove Avenue  
Menlo Park, CA 94025

U. S. Department of the Interior  
Geological Survey  
Water Resources Division  
2800 Cottage Way  
Sacramento, CA 95825

U. S. Department of the Interior  
Bureau of Reclamation  
Mid-Pacific Regional Office  
2800 Cottage Way  
Sacramento, CA 95825

### Local Agencies

Alameda County Flood Control and  
Water Conservation District  
399 Elmhurst Street  
Hayward, CA 94544

Alameda County Water District  
38050 Fremont Boulevard  
Fremont, CA 94537

City of San Francisco  
855 Harrison Street  
San Francisco, CA 94107

East Bay Municipal Utility District  
2130 Adeline Street  
Oakland, CA 94623

Marin Municipal Utility District  
220 Nellen Avenue  
Corte Madera, CA 94925

Monterey County Flood Control and  
Water Conservation District  
Court House  
Salinas, CA 93901

Napa County Flood Control and  
Water Conservation District  
1125 First Street  
Napa, CA 94558

Pacific Gas and Electric Company  
245 Market Street  
San Francisco, CA 94106

Santa Clara Valley Water District  
5750 Almaden Expressway  
San Jose, CA 95118



## Appendix A

### CLIMATOLOGICAL DATA

This appendix contains precipitation data for certain climate stations for the 1974 water year, October 1, 1973, through September 30, 1974. Additional precipitation data, as well as data concerning air temperature, wind, and evaporation, are available in the National Weather Service's publications "Climatological Data - California"; "Hourly Precipitation Data - California"; and, for particular key stations, "Local Climate Data". These publications can be obtained from:

Superintendent of Documents  
Government Printing Office  
Washington, D. C. 20402

Other agencies within the area covered by this report have established their own supplemental rain gage networks. Some of these agencies are: Alameda County Flood Control and Water Conservation District; City of San Francisco; Contra Costa County Flood Control and Water District; East Bay Municipal Utility District; Marin Municipal Water District; Marin County Department of Public Works; Monterey County; San Benito County; San Luis Obispo County Flood Control and Water District; Santa Clara Valley Water District; Santa Cruz County Department of Public Works; Sonoma County Water Agency; U. S. Department of the Army, Corps of Engineers, San Francisco District.

Each station in this appendix has been assigned an identification number. The letter and first digit denote the hydrographic unit as shown below. The remaining digits denote the alphabetical sequence of the station. A complete list of stations is contained in Bulletin No. 165, Index of Climatological Stations in California, 1971.

#### Central Coastal Area

D0 Santa Cruz Coast  
D1 Pajaro-San Benito Rivers  
D2 Lower Salinas River  
D3 Upper Salinas River  
D4 Monterey Coast  
T9 Upper Salinas River

#### San Francisco Bay Area

E0 San Francisco Bay  
E1 Coast-Marin  
E2 Marin-Sonoma  
E3 Napa-Solano  
E4 East Bay  
E5 Alameda Creek  
E6 Santa Clara Valley  
E7 Bayside-San Mateo  
E8 Coast-San Mateo

#### North Coastal Area

F8 Mendocino Coast  
F9 Russian River







CLIMATOLOGICAL OBSERVATION STATIONS 1973-74





TABLE A-1

PRECIPITATION IN CENTRAL COASTAL AREA  
DURING WATER YEAR 1974

This table summarizes monthly precipitation totals for selected stations for the 1974 water year, October 1, 1973, through September 30, 1974. The table shows each station's assigned number in accordance with the explanation given in the introduction to this appendix. Location is shown by latitude and longitude in degrees to the third decimal.

Precipitation values are shown to the nearest hundredth (.01) of an inch. Where digital recording rain gages that record to only the nearest tenth (.1) of an inch are used, a zero is shown in the second decimal place. The following notations are used to qualify the values:

.00-	No record or incomplete record
B	Record began
E	Wholly or partially estimated
N	Record ends
.00T	Trace, an amount too small to measure

The county code for each station is shown below:

Alameda	60	Marin	21	San Mateo	41
Alpine	02	Mariposa	22	Santa Barbara	42
Amador	03	Mendocino	23	Santa Clara	43
Butte	04	Merced	24	Santa Cruz	44
Calaveras	05	Modoc	25	Shasta	45
Colusa	06	Mono	26	Sierra	46
Contra Costa	07	Monterey	27	Siskiyou	47
Del Norte	08	Napa	28	Solano	48
El Dorado	09	Nevada	29	Sonoma	49
Fresno	10	Orange	30	Stanislaus	50
Glenn	11	Placer	31	Sutter	51
Humboldt	12	Plumas	32	Tehama	52
Imperial	13	Riverside	33	Trinity	53
Inyo	14	Sacramento	34	Tulare	54
Kern	15	San Benito	35	Tuolumne	55
Kings	16	San Bernardino	36	Ventura	56
Lake	17	San Diego	90	Yolo	57
Lassen	18	San Francisco	80	Yuba	58
Los Angeles	70	San Joaquin	39		
Madera	20	San Luis Obispo	40	Oregon	61
				Nevada (State)	62
				Arizona	63
				Mexico	64



TABLE A-1 (Cont.)

## PRECIPITATION IN CENTRAL COASTAL AREA DURING WATER YEAR 1974

CO	STA NO	LAT	LONG	ELEV	STATION NAME	TOTAL	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
07	E4 006400	37.866	122.033	410	ALAMO LN	28.17	1.73	6.79	6.04	3.11	1.14	7.15	1.72	.00	.00	.49	.00	.00
21	F9 013500	37.941	122.638	680	ALPINE DAM	55.80	2.94	14.28	6.09	8.21	3.48	8.76	7.17	.00	.23	4.64	.00	.00
28	E3 021200	38.571	122.434	1815	ANGWIN PACIFIC UNION C	59.23	3.41	17.33	7.60	9.96	3.07	13.10	3.59	.00	.00	1.12	.05	.00
27	D2 032200	38.733	121.483	808	ARROYO SECO	26.18	1.53	6.17	2.25	6.48	1.27	6.71	1.57	.17	.00	.03	.00	.00
28	E3 036800	38.433	122.250	1660	ATLAS ROAD DUTRA	.00-	3.20	.00-	5.80	5.80	2.20	10.50	2.70	.10	.10	2.30	.00	.00
35	D1 055000	36.455	120.988	1630	BAUMGARTNER RANCH	20.46	2.12	3.24	3.76	4.55	.23	5.15	1.26	.00	.00	.15	.00	.00
44	D0 067700	37.083	122.066	720	BEN LOMOND NO. 3	57.57	4.62	14.73	9.11	7.55	2.40	13.00	4.15	.00	.35	1.66	.00	.00
60	E4 069300	37.866	122.250	299	BERKELEY	35.34	1.67	11.47	3.88	4.12	2.96	5.47	4.16	.02	.09	1.50	.00	.00
27	D4 079000	36.250	121.783	235	BIG SUR STATE PARK	58.00	4.50	9.05	10.82	9.10	1.27	16.12	5.62	.00	.84	.68	.00	.00
48	E3 081448	38.138	121.868	60	BIRDS LANDING	19.39	1.85	6.15	3.12	1.75	.83	3.31	1.64	.00	.03	.71	.00	.00
27	D4 083101	36.356	121.838	1500	BIXBY MOUNTAIN	18.79	1.87	3.50	2.13	3.72	.53	3.92	2.59	.00	.30	.23	.00	.00
43	E6 085000	37.300	122.166	2331	BLACK MTN 2 SW	46.76	3.61	10.52	11.14	3.61	2.18	8.80	6.07	.00	.18	.65	.00	.00
21	F9 096900	37.956	122.610	723	BON TEMPE DAM	60.89	4.56	16.48	6.88	10.42	3.42	10.86	5.16	.00	.26	2.85	.00	.00
23	F8 097300	36.015	123.372	342	BOONVILLE HHS	62.38	3.33	17.22	7.83	12.50	5.13	11.96	3.30	.24	.00	.71	.16	.00
44	D0 100500	37.142	122.195	2175	BOULDER CREEK LOCATELL	84.80	6.20	22.80	12.80	8.80	5.70	16.40	8.20	.00	.60	3.30	.00	.00
07	B8 104100	37.895	121.863	650	BRANCH JAIL	114.50	7.70	37.60	8.60	20.20	8.20	23.10	4.00	.40	1.00	3.50	.20	.00
27	D3 114200	35.800	121.083	925	BRYSON	29.32	1.25	5.98	2.53	9.98	.38	8.34	.86	.00	.00	.00	.00	.00
41	E7 120600	37.583	122.350	10	BURLINGAME	29.58	1.77	8.72	4.99	4.19	1.10	5.79	2.54	.00	.15	.33	.00	.00
07	E4 121600	37.866	122.083	530	BURTON RANCH	33.75	1.46	8.56	6.30	3.89	1.37	8.53	2.98	.00	.00	.64	.00	.00
44	D1 124700	37.033	121.833	1275	BUZZARD LAGOON	58.52	3.85	14.09	9.87	5.97	3.07	13.29	4.88	.00	.75	2.75	.00	.00
60	E5 128100	37.486	121.818	805	CALAVERAS RESERVOIR	26.91	2.44	5.71	7.36	2.50	1.59	4.29	4.68	.00	.03	.31	.00	.00
28	E3 131200	38.584	122.582	364	CALISTOGA	56.42	3.15	17.12	5.78	9.12	4.07	11.77	3.37	.03	.20	.01	.00	.00
43	E6 137701	37.283	121.950	192	CAMPBELL WATER CO	17.97	1.90	3.72	3.32	2.71	.72	4.18	1.17	.00	.25	.00	.00	.00
27	D4 153201	36.551	121.908	150	CARMEL BALDWIN PLACE	24.04	1.90	5.18	3.00	4.06	1.20	5.10	2.95	.00	.50	.15	.00	.00
27	D4 153202	36.541	121.924	26	CARMEL-DONNELLY	22.46	1.50	5.01	3.76	4.29	1.23	4.28	2.07	.00	.18	.14	.00	.00
27	D4 153203	36.550	121.913	240	CARMEL-FLANDERS	20.59	1.71	4.17	2.86	3.57	.92	4.09	2.41	.00	.64	.22	.00	.00
27	D4 153210	36.503	121.928	400	CARMEL HIGHLANDS 37	26.11	2.06	3.98	4.58	3.75	2.01	5.13	3.33	.10	.62	.48	.06	.01
27	D4 153211	36.496	121.933	420	CARMEL HIGHLANDS 42	23.02	1.90	2.00	2.76	3.65	1.91	5.47	3.30	.05	.57	.41	.00	.00
27	D4 153220	36.561	121.906	420	CARMEL HILLS-BAUER	20.37	1.58	5.01	3.23	4.40	1.10	3.74	2.03	.00	.09	.19	.00	.00
27	D4 153400	36.483	121.733	425	CARMEL VALLEY	20.29	1.50	3.47	3.52	4.46	.51	4.44	2.07	.00	.18	.14	.00	.00
27	D4 153402	36.533	121.850	40	CARMEL VALLEY-MARTIN	19.59	1.75	4.27	2.72	3.61	1.09	4.37	1.20	.01	.39	.18	.00	.00
28	E3 153700	38.283	122.359	300	CARNEROS VALLEY	40.55	2.28	13.98	5.65	3.91	2.49	7.50	3.18	.09	.00	1.47	.00	.00
27	D2 158501	36.766	121.750	17	CASTROVILLE	23.40	2.09	4.60	3.95	3.80	1.15	3.81	3.08	.00	.68	.24	.00	.00
49	F9 160300	38.533	123.133	1100	CAZADERO 3 W	126.27	9.61	37.24	12.15	24.84	10.67	20.66	8.07	.10	.05	2.87	.01	.00
35	D1 173900	36.900	121.600	125	CHITTENDEN PASS	30.40	1.88	6.25	5.63	4.03	.90	7.89	2.97	.00	.16	.69	.00	.00
44	D1 173901	36.902	121.604	104	CHITTENDEN	29.11	1.77	6.04	5.35	3.86	.84	7.68	3.04	.00	.07	.46	.00	.00
35	D1 176600	36.715	121.346	900	CIENEGA	21.27	1.53	3.08	4.33	3.43	.86	4.87	2.52	.00	.00	.65	.00	.00
00	F9 183702	38.800	123.000	15	CLOVERDALE 15	.00-	3.53	.00-	.00-	11.40	.00-	.00-	1.60	.10	.00	1.30	.50	.00
49	F9 183800	38.766	122.983	320	CLOVERDALE 3 SSE	63.82	3.99	19.67	7.63	10.56	4.57	13.29	2.50	.11	.00	1.35	.15	.00
07	E4 196200	37.966	121.983	200	CONCORD 3 E	21.33	1.46	5.19	4.35	2.39	1.20	4.73	1.73	.00	.00	.28	.00	.00
23	F9 210500	39.183	122.813	720	COYOTE DAM	51.09	2.43	12.75	7.29	9.60	4.50	10.26	2.91	.26	.00	.91	.18	.00
07	E4 217700	38.033	123.216	12	CROCKETT	27.47	1.77	6.56	5.54	4.28	1.12	5.09	2.71	.04	.00	.36	.00	.00
27	D4 225101	36.581	121.971	50	DAVENS POINT CLUB	24.57	1.66	5.28	3.21	4.36	1.44	4.65	3.08	.00	.65	.24	.00	.00
44	D0 229000	37.016	122.200	273	CYRESSPORT	39.95	2.62	9.12	5.98	6.13	2.02	7.39	4.11	.00	.30	2.28	.00	.00
27	D2 229100	36.646	121.916	243	DAVID AVE RESERVOIR	22.31	1.66	4.56	3.16	3.89	.95	4.30	2.61	.08	.58	.33	.13	.06
27	D2 236200	36.600	121.866	46	DEL MONTE	23.00	2.06	3.56	4.95	4.01	1.26	3.61	2.84	.00	.35	.34	.02	.00
28	E3 258000	38.201	122.303	20	DUTTONS LANDING	26.49	1.52	7.42	4.92	3.29	1.19	5.31	1.89	.09	.00	.86	.00	.00
48	E3 293400	38.260	122.040	34	FAIRFIELD FIRE STATION	25.41	1.66	7.20	4.73	3.64	1.06	4.61	1.80	.11	.00	.60	.00	.00
48	E3 293500	38.289	122.033	110	FAIRFIELD 3 NNE	.00-	1.30	.00-	3.40	4.20	1.40	4.50	2.00	.10	.00	.00	.00	.00
27	D4 313511	36.591	121.941	295	FOREST LAKE	24.06	1.96	4.75	3.27	3.76	1.19	4.50	2.99	.11	.81	.41	.21	.10
23	F8 316100	39.445	123.806	80	FORT BRAGG	54.84	5.67	12.98	7.39	7.60	5.18	9.84	4.37	.31	.34	.85	.18	.13
27	D2 318501	36.656	121.815	210	FORT ORD	23.56	1.70	4.81	2.26	3.76	1.13	5.46	3.64	.00	.38	.40	.02	.00
27	D2 318600	36.683	121.766	134	FORT ORD	23.58	1.70	4.10	3.00	3.67	1.08	5.49	3.74	.00	.38	.40	.02	.00
49	F9 319100	38.516	123.250	116	FORT ROSS	67.96	4.84	18.15	7.40	12.95	6.13	11.17	4.62	.02	.00	2.53	.15	.00
44	D1 323200	37.050	121.816	1495	FREEDOM 8 NNW	.00-	.00-	16.25	6.85	7.98	4.84	11.79	.00-	.00-	.00-	.00	.00	.00
35	D2 323800	36.760	121.498	2500	FREMONT PEAK	.00-	2.47	6.70	6.89	4.01	1.35	7.32	5.22	.00	.07	.54	.00	.00
35	D2 324500	36.948	121.233	1827	FRENCH RANCH	27.44	2.55	5.41	5.01	3.85	1.25	5.17	3.78	.00	.00	.42	.00	.00
43	E5 338700	37.366	121.486	2140	GERBER RCH	22.59	2.47	7.40	4.93	2.78	.51	4.97	2.22	.00	.00	.00	.01	.00
43	D1 341700	37.000	121.566	194	GILROY	25.91	1.61	5.84	4.03	3.60	.78	7.48	1.63	.00	.14	.80	.00	.00
43	D1 341900	37.033	121.450	1050	GILROY 8 NE	.00-	1.89	5.49	3.57	2.97	1.56	6.47	.00-	.00	.00	.55	.00	.00
43	D1 342200	37.100	121.333	1350	GILROY 14 ENE	25.69	2.32	4.66	5.17	3.04	.71	7.95	1.53	.00	.00	.31	.00	.00
35	D2 350200	36.533	122.283	2350	GONZALES 9ENE	.00-	.00-	3.07	3.47	3.84	.79	3.56	.00-	.00	.00	.45	.00	.00
49	F9 357800	38.433	122.883	210	GRATON 1 W	56.15	2.98	16.34	8.01	8.99	3.96	10.86	3.19	.08	.00	1.93	.01	.00
27	D2 359100	36.323	121.243	280	GREENFIELD BAKER	20.56	.90	4.17	1.12	6.83	5.59	1.77	.18	.00	.00	.00	.00	.00
41	E8 371400	37.461	122.433	60	HALF MOON BAY	37.96	3.04	9.50	6.32	4.87	2.16	7.20	3.22	.01	.50	1.01	.13	.00
27	D2 377880	36.567	121.700	520	HARPER CANYON	19.27	1.57	3.35	3.90	3.79	2.56	1.48	2.17	.10	.00	.35	.00	.00
60	E4 386300	37.652	121.885	715	HAYWARD 6 ESE	38.72	2.16	11.80	6.17	3.73	2.99	5.49	5.43	.00	.05	.91	.19	.00
49	F9 387500	38.616	122.833	101	HEALDSBURG	64.62	4.79	21.20	6.65	10.67	5.21	12.17	2.07	.15	.00	1.71	.00	.00
49	F9 387800	38.616	122.833	102	HEALDSBURG 2 E	62.89	4.45	19.35	8.10	10.05	3.98	13.00	2.17	.06	.00	1.73	.00	.00
35	D1 392500	36.416	120.916															



TABLE A-1 (Cont.)

## PRECIPITATION IN CENTRAL COASTAL AREA DURING WATER YEAR 1974

CO	STA NO	LAT	LONG	ELEV	STATION NAME	TOTAL	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
07	E4 537000	38.016	122.116	40	MARTINEZ WATER PLANT	21.94	1.58	5.73	4.05	2.39	1.09	5.02	1.80	.00T	.00	.28	.00	.00
43	E6 563700	37.116	121.918	1750	MILLBERRY	.00-	.20	1.90	.40	.00-	.30	4.10	.10	.20	.00	.00	.00	.00
27	D4 570500	36.600	121.900	335	MONTEREY	24.00	2.20	3.87	4.73	3.73	.91	4.48	3.40	.03	.37	.25	.02	.01
27	D4 579600	36.583	121.883	120	MONTEREY AP	17.71	1.99	2.81	3.07	3.05	.65	3.52	2.34	.00	.00T	.28	.00	.00
27	D4 579601	36.588	121.891	170	MONTEREY-MALTINER	23.47	2.36	4.77	3.73	3.78	1.10	4.42	2.99	.03	.22	.07	.00	.00
27	D4 579605	36.610	121.866	46	MONTEREY-RANDOLPH	27.20	2.10	4.42	4.97	4.45	1.64	5.82	3.30	.00	.30	.20	.00	.00
27	D4 579606	36.594	121.913	360	MONTEREY-RENOAD	24.00	2.20	3.87	4.73	3.73	.91	4.48	3.40	.03	.37	.25	.02	.01
27	D4 579607	36.628	121.866	40	MONTEREY SEWAGE PLANT	17.06	1.92	3.03	2.01	3.02	.63	3.62	2.38	.00	.25	.20	.00T	.00
43	E6 504400	37.133	121.614	225	MORGAN HILL 2 E	23.22	2.25	4.02	4.03	4.28	.56	5.87	1.70	.00	.05	.46	.00	.00
43	D1 505300	37.133	121.650	350	MORGAN HILL S C S	.00-	2.10	7.40	2.10	4.40	.00-	.00-	1.50	.10	.10	.40	.00	.00
27	D1 507800	36.816	121.784	30	MOSS LANDING	20.58	1.36	4.57	3.54	2.49	1.24	4.63	1.42	.00	.44	.89	.00	.00
07	E4 591500	37.068	121.934	2070	MOUNT DIABLO NORTH GAT	27.27	1.78	6.58	4.94	3.58	.95	6.24	2.61	.00T	.03	.56	.00	.00
43	E5 593300	37.333	121.650	4200	MOUNT HAMILTON	25.42	3.07	4.05	6.86	1.65	1.07	3.42	4.94	.00	.00T	.36	.00	.00
44	D1 597300	37.016	121.718	1800	MOUNT MADONNA	49.74	3.17	11.18	3.82	6.95	2.04	14.18	4.71	.22	.04	3.16	.00	.27
21	E2 599600	37.900	122.600	1480	MT TAMALPAIS 2 SW	.00-	.00-	.00-	9.30	6.50	.00-	.00-	4.00	.00	.20	2.60	.00	.00
21	E2 602700	37.900	122.566	170	MUIR WOODS	52.89	4.99	13.39	9.04	7.73	3.31	7.85	4.83	.00T	.08	1.67	.00	.00
28	E3 607400	38.277	122.263	73	NAPA STATE HOSPITAL	32.10	1.64	10.51	4.40	4.96	1.84	5.71	1.97	.02	.00	1.05	.00	.00
23	F8 610500	39.163	123.563	220	NAVARRO 1 NW	.00-	4.31	17.31	5.98	.00-	6.16	11.49	2.91	.05	.00	.00-	.00-	.00-
60	E5 614400	37.521	122.028	14	NEWARK	16.42	1.63	2.99	3.84	2.41	.88	2.23	1.66	.00	.63	.15	.00	.00
27	D2 616601	36.578	121.913	630	NEW MONTEREY 25	20.06	1.92	3.31	2.85	4.02	.91	3.67	2.43	.00T	.40	.55	.00	.00
21	F9 618700	38.055	122.695	205	NICASIO	52.85	3.23	15.58	6.38	8.41	2.39	7.34	8.13	.05	.00	1.34	.00	.00
	D2 621011					17.48	1.85	3.20	2.28	3.64	.57	3.49	2.13	.00	.32	.00	.00	.00
21	E2 629000	38.133	122.716	350	NOVATO 8 WNW	.00-	1.56	11.39	4.25	6.13	3.05	.00-	2.35	.00	.00	.90	.00	.00
60	E4 633500	37.733	122.200	3	OAKLAND W8 AP	26.32	1.35	7.42	3.99	3.38	1.90	4.19	3.21	.00T	.08	.80	.00T	.00
60	E4 633600	37.850	122.266	200	OAKLAND KEENEY	31.80	1.77	9.67	5.39	3.39	1.76	5.15	3.33	.00	.15	1.19	.00	.00
28	E3 635100	38.446	122.418	165	OAKVILLE 1 WNW	40.22	1.85	12.69	4.92	6.06	3.79	7.21	2.42	.00	.00	1.28	.00	.00
28	E3 635600	38.398	122.465	1685	OAKVILLE 4 SW NO.2	53.09	2.97	17.31	5.49	7.78	4.31	10.42	2.79	.00	.00	2.02	.00	.00
49	F9 637000	38.412	122.961	960	OCCIDENTAL	82.01	6.43	24.76	6.15	12.11	8.00	13.23	6.32	.10	.00	2.91	.00	.00
27	D4 658701	36.600	121.929	360	PACIFIC GROVE-ALLEN	23.63	2.04	4.65	3.07	4.10	1.31	4.47	3.25	.00	.50	.24	.00	.00
27	D4 658703	36.616	121.928	130	PACIFIC GROVE-29	24.45	1.51	5.23	5.56	3.99	1.13	3.75	2.66	.00	.33	.29	.00	.00
35	D1 661000	36.733	121.366	950	PAICINES OHRWALL RCH	19.18	1.44	3.04	3.70	3.65	.64	4.25	1.97	.00T	.04	.45	.00	.00
43	E6 664600	37.445	122.139	43	PALO ALTO CITY HALL	18.92	2.31	3.92	3.91	3.30	.68	3.15	1.31	.08	.20	.06	.00	.00
27	D4 664801	00.000	000.000	1200	PALO COLORADO CYN 45	21.85	1.93	4.87	3.05	4.21	1.06	3.46	2.41	.00	.30	.56	.00	.00
27	D2 665000	36.350	121.500	1835	PALOMA	24.03	1.68	5.15	3.85	4.95	.61	5.10	2.54	.00T	.02	.13	.00	.00
43	D2 668901	37.083	121.641	425	PARADISE VALLEY	27.52	2.25	8.55	.90	5.49	3.90	5.06	1.37	.00T	.00	.00	.00	.00
27	D3 670300	35.803	120.433	1482	PARKFIELD	15.52	1.15	1.81	3.00	6.21	.10	3.25	.00	.00	.00	.00	.00	.00
23	F8 685101	39.091	123.474	240	PHILO 2 NW	61.01	3.99	18.01	5.73	12.69	6.20	10.29	3.13	.11	.00	.80	.06	.00
21	E2 685300	37.956	122.574	175	PHOENIX LAKE DAM	71.39	5.70	21.70	8.07	10.56	3.22	15.13	4.52	.00	.20	2.29	.00	.00
41	E8 686300	37.546	122.420	625	PILARCITOS	61.39	3.06	18.54	8.39	8.04	5.51	11.54	3.57	.00	.42	2.30	.02	.00
35	D2 692600	36.483	121.183	1310	PINNACLES NAT MON	18.96	1.66	2.51	3.21	5.05	.34	4.24	1.90	.03	.00	.02	.00	.00
	D2 692605					16.14	.82	2.83	3.13	3.60	.32	4.16	1.28	.00	.00	.00	.00	.00
23	F8 700900	38.916	123.700	122	POINT ARENA	.00-	.00-	.00-	.00-	.00-	.00-	.00-	5.78	.20	.00T	1.57	.51	.00T
07	E4 707000	38.018	122.016	50	POTR CHICAGO NAD	21.20	1.48	5.37	4.42	2.94	1.05	3.83	1.79	.00T	.00	.32	.00	.00
27	F1 710800	39.300	123.066	1100	POTTER VALLEY 3 SE	.00-	2.16	10.86	5.90	7.41	4.37	3.87	2.07	.33	.00	-1.02	.00-	.00-
23	F9 710900	39.366	123.133	1014	POTTER VALLEY PH	67.12	4.18	17.77	9.12	12.59	6.50	11.31	3.80	.37	.00	1.48	.00	.00
27	D2 715000	36.183	120.700	2300	PRIEST VALLEY	24.05	2.09	3.24	3.01	7.64	.30	6.50	1.27	.00	.00T	.00T	.00	.00
35	D2 719000	36.858	121.196	1630	QUIEN SABE MAY CAMP	24.11	1.73	3.87	5.71	2.78	1.17	3.94	3.91	.02	.03	.95	.00	.00T
41	E6 733900	37.483	122.233	31	REDWOOD CITY	25.76	1.96	7.36	4.83	3.46	1.05	4.64	2.11	.00T	.13	.22	.00	.00
07	E4 741400	37.933	122.350	55	RICHMOND	30.76	1.79	10.55	3.92	3.75	2.01	4.67	2.62	.00	.04	1.41	.00	.00
27	D4 749901	36.574	121.946	250	ROBLES DEL RIO	21.84	1.53	3.26	3.79	3.55	.97	6.24	1.54	.02	.65	.24	.02	.03
27	D4 753901	36.179	121.696	1100	ROOSEVELT RANCH	52.27	4.10	10.78	7.77	9.08	5.70	8.00	4.90	.00	1.00	.94	.00	.00T
28	E3 764300	38.506	122.461	225	SAN HELENA	46.11	2.62	15.25	5.69	6.49	4.49	8.32	2.02	.05	.00T	1.08	.10	.00
21	E3 764600	38.500	122.533	1792	SAINT HELENA 4 WSW	65.60	3.90	21.40	6.60	8.50	7.00	12.40	3.60	.00	.00	2.20	.00	.00
27	D2 766800	36.666	121.616	80	SALINAS 2 E	23.19	1.90	3.65	5.90	2.96	.81	3.90	3.38	.00	.34	.35	.00	.00
27	D2 766900	36.666	121.600	80	SALINAS FAA AP	22.06	1.86	3.90	5.01	2.92	.95	3.81	2.92	.00T	.35	.34	.00T	.00
41	E7 770400	37.583	122.400	377	SAN ANDREAS LAKE	43.06	1.91	13.70	5.58	5.41	3.80	8.99	2.51	.00	.30	.86	.00	.00
27	D3 771203	35.814	120.935	800	SAN ANTONIO DAM	19.06	.98	2.42	2.08	8.84	.02	4.37	.35	.00T	.00T	.00	.00	.00
27	D2 771600	36.033	120.900	440	SAN ARDO	13.83	.58	1.83	1.56	5.80	.00	3.39	.67	.00	.00	.00	.00	.00
35	D1 771900	36.508	121.081	1355	SAN BENITO	.00-	1.38	3.58	1.82	3.31	.33	.00-	.00-	.00	.00	.00	.00	.00
27	D4 773100	36.436	121.708	600	SAN CLEMENTE DAM	23.79	1.81	3.92	4.31	4.80	.40	6.34	2.03	.00	.11	.07	.00	.00
80	E8 776700	37.766	122.500	300	SAN FRANCISCO SUNSET	27.19	1.64	7.30	4.11	3.96	1.84	5.35	2.30	.00	.14	.55	.00	.00
41	E7 776900	37.616	122.383	8	SAN FRANCISCO W8 AP	24.90	1.60	7.94	3.55	3.21	1.70	4.21	2.32	.00T	.14	.23	.00T	.00T
80	E7 777200	37.783	122.416	52	SAN FRANCISCO F O B	25.55	1.62	7.80	3.65	3.40	1.53	4.49	2.34	.00	.10	.62	.00	.00
41	E8 780700	37.303	122.360	245	SAN GREGORIO 2 SE	38.05	2.68	9.99	6.11	4.29	2.48	7.22	3.39	.09	.35	1.15	.18	.02
	D1 781700					20.35	2.35	2.73	4.30	3.57	.72	3.73	2.90	.00	.00	.05	.00	.00
43	E6 782100	37.350	121.900	70	SAN JOSE	16.30	2.22	2.79	2.67	2.51	.82	3.30	1.73	.00T	.08	.18	.00	.00
43	E6 782401	37.316	121.950	90	SAN JOSE DECIO F F S	15.15	2.36	2.29	2.39	2.38	.72	3.65	1.29	.00	.07	.00	.00	.00
35	D1 783400	39.816	121.916	615	SAN JUAN BAUTIST 35SE	.00-	.00-	.00-	.00-	.00-	1.29	4.89	2.54	.00	.00	.23	.00	.00
35	D2 783500	36.844	121.533	200	SAN JUAN BAUTISTA MI	22.12	1.74	4.51	3.37	3.22	.68	5.69	2.40	.00	.08	.43	.00	.00
41	E7 786400	37.586	122.316	30	SAN MATEO	24.53	.97	7.48	4.32	3.48	1.37	3.72	2.49	.00	.35	.35	.00	.00

TABLE A-1 (Cont.)

## PRECIPITATION IN CENTRAL COASTAL AREA DURING WATER YEAR 1974

CO	STA NO	LAT	LONG	ELEV	STATION NAME	TOTAL	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
23	F9 912200	39.150	123.200	623	UKIAH	57.04	3.02	16.33	6.89	11.56	5.32	9.96	2.67	.35	.00	.84	.10	.00
23	F9 912400	39.133	123.283	1900	UKIAH 4 WSW	66.74	4.67	20.17	9.04	11.15	6.78	9.29	3.96	.27	.00	1.22	.19	.00
27	D2 914700	36.610	121.894	20	USCB LIFEBOAT STA	19.21	2.33	3.99	2.61	2.19	.84	3.55	2.20	.00	.30	.60	.60	.00
07	E4 918500	37.766	122.166	390	UPPER SAN LEANDRO FIL	36.62	1.52	9.20	6.94	4.01	2.21	6.80	4.68	.00	.10	1.16	.00	.00
35	D1 918900	36.633	121.033	2050	UPPER TRES PINOS	.00-	1.11	3.53	2.68	2.71	.00-	5.83	.00-	.00	.00	.23	.00	.00
49	F9 927300	36.616	123.016	1265	VENADO	.00-	6.90	.00-	.00-	.00-	9.40	19.90	2.90	.20	.00	2.00	.00	.00
28	E3 930500	38.383	122.366	170	VETERANS HOME	45.65	2.41	14.38	6.64	5.57	2.54	10.13	2.68	.11	.00	1.19	.00	.00
07	E4 942300	37.883	122.033	245	WALNUT CREEK 2 ESE	.00-	1.50	5.60	4.96	2.36	1.09	5.85	1.72	.00	.00-	.00-	.00-	.00-
07	E4 942600	37.900	122.016	220	WALNUT CREEK 2 ENE	22.29	1.38	7.06	3.19	2.31	1.99	4.50	1.62	.00	.00	.24	.00	.00
07	E4 942700	37.906	121.994	265	WALNUT CREEK 4 E	21.79	1.44	4.74	5.06	2.40	1.02	5.08	1.88	.00	.00	1.17	.00	.00
49	F9 944000	38.716	123.000	224	WARM SPRINGS DAM	64.22	4.02	19.91	7.20	11.89	4.54	13.09	2.33	.05	.00	1.14	.05	.00
44	D1 947300	36.933	121.766	95	WATSONVILLE WATERWORKS	34.07	1.64	6.82	5.85	4.68	1.31	7.76	4.29	.00	.45	1.27	.00	.00
49	F9 975600	00.000	000.000		WOHLER PUMPING PLANT	.00-	4.31	20.37	5.44	11.66	.00-	.00-	.00-	.00-	.00-	.00-	.00-	.00-
21	F9 977000	38.006	122.641	430	WOODACRE	60.41	4.07	18.76	7.50	10.06	3.43	10.64	4.01	.01	.13	1.80	.00	.00
41	E7 979200	37.428	122.254	380	WOODSIDE FIRE STA	36.68	2.43	10.24	6.61	3.69	1.89	7.90	3.08	.10	.17	.57	.00	.00
43	E6 981400	37.133	121.950	1600	WRIGHTS	58.64	4.17	15.30	6.95	7.45	3.08	14.86	3.99	.12	.77	1.95	.00	.00
23	F8 985100	38.905	121.312	1120	YORKVILLE	.00-	4.70	.00-	.00-	19.50	7.10	16.90	2.20	.20	.00	1.50	.20	.00



## Appendix B

### SURFACE WATER MEASUREMENTS

This appendix contains surface water data for the period from October 1, 1973, through September 30, 1974. These data consist of the amounts of water imported to the report area; daily gage heights; daily tides; and corrections and revisions to previously published reports of surface water data. Station locations are shown on Figure D-1, sheet 2.

In addition to data collected and published by the Department of Water Resources in this appendix, the U. S. Geological Survey collects and publishes data on many additional gaging stations for the same report area. This work is done under a federal-state cooperative contract or through local cooperative arrangements with other local or governmental agencies. The data published in the following reports, together with this report, present a comprehensive analysis of water resources for the area:

1. "Water Resources Data for California, Part 1: Surface Water Records, Volume I: Colorado River Basin, Southern Great Basin, and Pacific Slope Basins excluding Central Valley". U. S. Geological Survey.
2. Bulletin No. 120, "Water Conditions in California, Fall Issue". Department of Water Resources.
3. Bulletin No. 157, "Index to Stream Gaging Stations in and Adjacent to California, 1970". Department of Water Resources. This index contains the period of record -- with the number of years missing -- and more information for stations in the report area. The index also identifies the agency from which a particular record may be obtained.

TABLE B-1  
SURFACE WATER IMPORTS TO THE CENTRAL COASTAL AREA

WATER USER	1974 WATER YEAR												TOTAL
	OCT.	NOV.	DEC.	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEPT.	
<u>CITY OF VALLEJO FROM CACHE SLOUGH</u> <sup>a</sup>													
Total acre-feet	1,415	1,066	783	792	745	812	953	1,288	1,480	1,348	1,339	1,039	13,060
Average cubic feet per second	23	18	13	13	13	13	16	21	25	22	22	17	18
Monthly quantities in percent of seasonal	10.8	8.2	6.0	6.1	5.7	6.2	7.3	9.9	11.3	10.3	10.2	8.0	
<u>CONTRA COSTA CANAL</u> <sup>b</sup>													
Total acre-feet	6,465	5,012	3,426	3,546	3,207	4,032	4,639	7,039	11,183	12,179	11,836	6,859	79,423
Average cubic feet per second	105	84	56	58	58	66	78	114	188	198	192	115	110
Monthly quantities in percent of seasonal	8.1	6.3	4.3	4.5	4.1	5.1	5.8	8.9	14.1	15.3	14.9	8.6	
<u>HETCH HETCHY AQUEDUCT</u> <sup>c</sup>													
Total acre-feet	16,778	2,901	20,287	11,354	1,670	14,066	14,456	14,982	22,519	27,037	28,242	26,820	201,112
Average cubic feet per second	273	49	330	185	30	229	243	244	378	440	459	451	278
Monthly quantities in percent of seasonal	8.4	1.5	10.1	5.6	0.8	7.0	7.2	7.5	11.2	13.4	14.0	13.3	
<u>MOSELUMNE RIVER AQUEDUCT</u> <sup>d</sup>													
Total acre-feet	18,700	15,881	9,851	9,138	10,743	11,525	12,332	17,991	20,803	22,101	22,092	19,902	191,059
Average cubic feet per second	304	267	160	149	193	187	207	293	350	359	359	334	264
Monthly quantities in percent of seasonal	9.8	8.3	5.2	4.8	5.6	6.0	6.4	9.4	10.9	11.6	11.6	10.4	
<u>POTTER VALLEY POWERHOUSE FROM EEL RIVER</u> <sup>e</sup>													
Total acre-feet	6,860	1,440	18,230	15,140	13,100	17,130	17,540	18,070	15,990	6,360	5,420	14,870	149,850
Average cubic feet per second	112	24	297	246	236	279	295	294	269	104	88	250	207
Monthly quantities in percent of seasonal	4.6	1.0	12.1	10.1	8.7	11.4	11.7	12.0	10.7	4.2	3.6	9.9	
<u>PUTAH SOUTH CANAL</u> <sup>b *</sup>													
Total acre-feet	7,695	1,989	1,946	6,200	9,259	2,053	9,935	31,754	36,881	37,611	36,248	23,459	205,030
Average cubic feet per second	125	33	32	101	167	33	167	516	620	612	590	394	283
Monthly quantities in percent of seasonal	3.8	1.0	0.9	3.0	4.5	1.0	4.9	15.5	18.0	18.3	17.7	11.4	
<u>SOUTH BAY AQUEDUCT</u>													
Total acre-feet	4,216	6,331	6,186	1,200	2,135	387	2,809	9,760	10,976	12,306	7,134	6,238	69,678
Average cubic feet per second	69	106	101	20	38	6	47	159	184	200	116	105	96
Monthly quantities in percent of seasonal	6.0	9.1	8.9	1.7	3.1	0.6	4.0	14.0	15.7	17.7	10.2	9.0	

a Data furnished by City of Vallejo.

b Data furnished by U. S. Bureau of Reclamation.

c Data furnished by the City of San Francisco.

d Data furnished by East Bay Municipal Utility District.

e Data furnished by U. S. Geological Survey.

\* Amounts are total diversion into the canal; an unknown portion of this is imported to the Central Coastal Area.



**TABLE B-2**  
**DAILY GAGE HEIGHT**  
(IN FEET)

WATER YEAR	STATION NO.	STATION NAME
1974	E31400	RECTOR RESERVOIR NEAR YOUNTVILLE

DAY	OCT.	NOV.	DEC.	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEPT.	DAY
1	349.70	346.38	370.42	370.28	370.21	370.90	370.59	370.01	366.93	362.76	358.41	354.01	1
2	349.58	346.27	370.31	370.28	370.20	370.60	370.44	369.96	366.80	362.57	358.17	353.88	2
3	349.42	346.18	370.28	370.42	370.21	370.44	370.38	369.87	366.70	362.41	358.14	353.75	3
4	349.26	346.08	370.27	370.38	370.23	370.35	370.32	369.82	366.59	362.25	357.97	353.65	4
5	349.12	346.20	370.27	370.36	370.17	370.29	370.30	369.77	366.45	362.12	357.83	353.53	5
6	349.00	346.22	370.26	370.36	370.17	370.28	370.28	369.72	366.30	361.96	357.69	353.39	6
7	348.91	346.25	370.25	370.37	370.16	370.32	370.26	369.68	366.18	361.82	357.45	353.25	7
8	348.80	346.20	370.25	370.36	370.14	370.28	370.24	369.59	366.04	361.28	357.39	353.12	8
9	348.67	346.47	370.23	370.32	370.14	370.27	370.24	369.50	365.89	361.68	357.25	352.98	9
10	348.57	347.10	370.22	370.29	370.13	370.24	370.24	369.38	365.76	361.58	356.11	352.83	10
11	348.44	350.50	370.22	370.34	370.13	370.24	370.24	369.29	365.62	361.44	356.96	352.69	11
12	348.31	352.19	370.29	370.34	370.13	370.24	370.20	369.19	365.49	361.30	356.82	352.55	12
13	348.20	353.99	370.31	370.33	370.14	370.24	370.19	NR	365.34	361.17	356.68	352.41	13
14	348.10	354.85	370.29	370.57	370.16	370.23	370.17	NR	365.20	361.04	356.54	352.27	14
15	348.00	355.47	370.28	370.47	370.18	370.22	370.17	NR	365.07	360.89	356.38	352.14	15
16	347.86	359.23	370.27	370.77	370.17	370.22	370.16	NR	364.95	360.74	356.25	352.00	16
17	347.72	363.40	370.26	370.55	370.17	370.17	370.16	NR	364.79	360.61	355.12	351.87	17
18	347.60	365.72	370.26	370.59	370.17	370.17	370.16	NR	364.66	360.47	355.94	351.73	18
19	347.50	366.62	370.23	370.48	370.18	370.17	370.15	NR	364.53	360.31	355.79	351.60	19
20	347.40	367.40	370.23	370.41	370.18	370.17	370.11	NR	364.37	360.17	355.68	351.46	20
21	347.34	367.83	370.41	370.37	370.18	370.17	370.10	NR	364.24	359.02	355.54	351.33	21
22	347.40	368.15	370.34	370.32	370.17	370.17	370.10	NR	364.09	359.87	355.40	351.21	22
23	347.32	368.40	370.30	370.29	370.17	370.17	370.12	NR	363.95	359.70	355.28	351.07	23
24	347.23	368.67	370.29	370.30	370.17	370.17	370.14	NR	363.79	359.57	355.12	351.01	24
25	347.14	368.88	370.29	370.29	370.16	370.17	370.14	NR	363.64	359.43	354.98	350.97	25
26	347.03	369.08	370.41	370.26	370.15	370.17	370.14	NR	363.51	359.28	354.83	350.93	26
27	346.93	369.26	370.40	370.25	370.14	370.35	370.14	NR	363.34	359.16	354.69	350.87	27
28	346.81	369.41	370.41	370.25	370.38	370.40	370.13	NR	363.20	359.00	354.55	350.82	28
29	346.68	369.54	370.39	370.24		371.08	370.10	NR	363.08	358.86	354.40	350.79	29
30	346.58	370.43	370.35	370.21		370.67	370.07	NR	362.91	358.70	354.26	350.72	30
31	346.48		370.30	370.20		370.49		NR		358.56	354.15		31

**MAXIMUM INSTANTANEOUS GAGE HEIGHTS**

E — ESTIMATED  
NR — NO RECORD  
NF — NO FLOW

DATE	TIME	STAGE	DATE	TIME	STAGE	DATE	TIME	STAGE	DATE	TIME	STAGE
3-30-74	0400	371.60									

LOCATION			MAXIMUM DISCHARGE			PERIOD OF RECORD		DATUM OF GAGE			
LATITUDE	LONGITUDE	1/4 SEC. T. & R. M.D.B. & M.	OF RECORD			DISCHARGE	GAGE HEIGHT ONLY	PERIOD		ZERO ON GAGE	REF. DATUM
			CFS	GAGE HT.	DATE			FROM	TO		
38 26 24	122 20 36	SE 19 7N 4W						MAY 1948-DATE	5-48	0.00	USCGS

Rector Reservoir is located on Rector Creek about 3 miles northeast of Yountville. Gaging station is located on the outlet tower of the reservoir. Elevation of reservoir floor is 250 feet. Spillway elevation is 370 feet.

TABLE B-3

## DAILY TIDES

891110 SACRAMENTO RIVER AT COLLINSVILLE  
(OCTOBER 1, 1973, THROUGH MARCH 30, 1974)

DATE	OCTOBER		NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH		DATE
01	1.95 3.38	4.81 5.81	1.54 3.90	4.82 5.12	3.00 4.28	6.09 5.05	2.77 3.20	6.12 3.90	3.75 2.36	6.36 4.36	4.26 2.94	6.76 5.19	01
02	1.83 3.45	4.54 5.42	1.44 3.60	4.64 4.78	2.09 3.38	5.30 4.21	2.58 2.66	5.73 4.13	3.03 1.83	6.31 4.31	4.33 2.29	6.73 5.21	02
03	1.54 3.70	4.39 5.18	1.51 3.05	4.66 4.32	2.09 2.94	5.40 4.11	3.37 2.76	6.67 4.93	4.70 6.59	3.75 1.73	4.20 1.84	6.52 1.87	03
04	1.49 3.72	4.44 5.02	1.31 2.54	4.67 4.15	2.48 2.66	5.83 4.29	3.82 2.53	6.96 2.63	5.00 6.86	3.66 1.94	4.92 6.22	3.55 1.66	04
05	1.57 3.63	4.71 5.29	1.47 2.75	5.12 4.70	2.83 2.23	6.06 4.44	5.30 7.57	4.48 2.63	5.24 6.59	3.29 1.70	5.24 6.44	3.29 1.87	05
06	1.97 3.52	5.14 5.52	2.12 1.91	5.40 4.49	3.01 1.87	6.24 4.49	5.54 7.56	4.37 2.46	5.04 6.57	2.81 1.71	5.67 6.79	3.25 2.33	06
07	2.14 2.97	5.27 5.26	2.08 1.84	5.67 4.49	4.59 6.56	3.21 1.79	5.65 7.51	4.22 2.40	5.96 6.50	2.86 1.85	6.26 7.06	3.38 2.52	07
08	1.95 2.53	5.21 4.49	4.65 5.83	2.31 1.58	4.78 6.82	3.40 1.76	6.04 7.62	4.33 2.55	5.72 6.93	2.58 1.74	6.30 6.49	2.89 2.42	08
09	5.25 5.28	1.99 2.22	4.72 6.13	2.66 1.68	4.93 6.72	3.44 1.47	6.02 7.35	3.99 2.34	5.84 5.70	2.41 1.96	6.13 5.75	2.25 2.29	09
10	5.10 5.44	2.08 1.98	4.83 6.35	2.84 1.49	4.87 6.77	3.39 1.56	5.97 6.82	3.98 2.11	6.09 5.28	2.41 2.27	6.24 5.65	2.26 2.69	10
11	5.15 5.77	2.37 1.97	4.94 6.78	3.50 1.88	5.50 7.42	4.33 2.00	5.88 6.86	3.31 2.00	6.19 6.88	2.34 1.96	6.52 5.61	2.42 3.25	11
12	5.15 5.94	2.60 1.72	5.75 6.97	3.95 1.88	5.58 6.81	3.76 2.00	2.26 3.45	6.35 5.98	2.63 2.52	6.19 4.72	6.59 5.24	2.42 3.35	12
13	4.90 5.95	2.61 1.53	5.34 7.06	3.72 1.88	1.97 3.85	6.05 6.54	2.40 3.09	6.34 5.12	3.89 2.84	5.96 4.11	6.15 4.73	2.14 2.42	13
14	4.80 6.12	2.82 1.52	2.13 3.59	5.37 6.41	1.97 3.57	5.92 5.84	2.36 2.89	6.23 4.66	3.33 1.77	5.67 4.05	3.57 2.16	5.87 4.59	14
15	4.77 6.20	3.16 1.04	1.69 3.68	5.43 6.11	1.75 2.97	5.71 4.89	3.00 2.95	6.49 4.97	3.49 1.57	5.56 2.18	3.87 2.18	5.70 4.69	15
16	1.59 3.25	4.69 6.04	1.92 3.75	6.05 5.73	1.76 2.77	5.79 4.64	3.88 3.30	7.11 4.95	4.35 5.85	3.76 1.88	4.05 2.11	5.44 4.76	16
17	1.47 3.41	4.68 5.98	2.00 3.93	6.08 6.31	2.30 2.59	6.32 4.45	4.06 2.53	6.98 4.98	4.62 5.59	3.49 1.49	3.87 1.97	5.36 4.69	17
18	1.82 3.37	4.84 5.67	2.99 3.34	6.51 5.13	2.65 2.17	6.18 4.39	4.95 7.05	4.30 3.14	4.65 5.85	3.31 1.47	5.02 5.50	3.75 2.07	18
19	1.55 3.19	4.97 5.64	2.16 2.33	5.96 4.68	3.04 1.75	5.97 4.68	5.56 7.03	4.66 3.44	5.03 6.01	3.45 1.56	5.27 5.68	3.57 2.18	19
20	1.71 2.84	5.14 5.39	2.49 2.59	6.41 4.41	4.49 6.16	3.33 1.78	5.91 7.32	4.97 3.54	4.69 5.51	2.63 1.29	5.57 5.97	3.51 2.45	20
21	1.81 2.61	5.46 5.36	5.14 6.71	3.14 2.48	5.01 6.92	4.17 2.31	5.80 8.96	4.82 3.43	4.80 5.90	2.63 1.61	5.84 5.79	3.09 2.25	21
22	2.12 2.88	5.94 1.70	5.41 6.92	3.61 2.43	5.35 6.54	4.04 1.85	5.66 8.62	4.49 3.09	4.96 5.21	2.31 1.27	5.74 5.71	2.67 2.42	22
23	6.05 5.85	2.83 2.03	5.44 6.66	3.75 2.12	5.01 6.36	3.78 1.64	5.54 8.74	4.28 3.05	4.81 5.00	2.82 1.49	5.94 5.65	2.54 2.61	23
24	4.94 5.82	2.15 1.70	5.47 6.31	3.74 1.74	4.92 6.21	3.69 1.57	5.79 8.55	4.26 2.95	5.07 4.78	1.86 1.75	6.10 5.41	2.26 2.75	24
25	4.84 5.85	2.35 1.46	5.06 6.56	3.79 2.11	4.93 6.10	3.73 1.60	6.00 8.39	4.23 2.94	5.41 4.81	2.82 2.15	6.22 5.45	2.25 2.99	25
26	4.67 5.74	2.54 1.35	5.39 6.38	4.08 1.85	5.12 6.20	3.85 1.99	5.97 8.68	3.87 2.96	5.73 4.73	2.21 2.55	6.38 5.53	2.21 3.73	26
27	4.54 5.55	2.62 1.18	5.12 5.78	3.92 1.46	5.53 6.04	4.00 1.93	5.67 8.15	3.47 2.52	5.89 4.52	1.95 3.25	6.44 5.56	2.36 4.14	27
28	4.58 5.70	2.91 1.17	4.72 5.55	3.67 1.46	5.41 5.70	3.89 1.98	5.73 8.76	3.27 2.40	6.49 5.50	2.88 1.75	6.67 4.95	2.85 3.84	28
29	4.43 5.45	3.05 1.17	1.57 4.04	5.08 5.57	5.61 5.50	3.97 1.97	2.72 3.16	5.87 4.39	6.47 5.39	2.28 1.75	6.47 5.39	2.28 1.75	29
30	1.12 3.20	4.29 5.26	1.87 4.68	5.55 6.54	2.17 3.51	5.43 4.76	2.92 2.93	6.05 4.20	4.75 2.53	7.02 5.34	5.97 5.49	5.97 5.49	30
31	1.18 3.64	4.52 5.36	2.27 3.50	5.66 6.52	3.25 4.58	6.20 4.48	6.20 4.48	6.20 4.48	6.20 4.48	6.20 4.48	6.20 4.48	6.20 4.48	31
MAXIMUM		6.20	7.06		7.42		7.62		6.86		7.06		MAXIMUM
MINIMUM		1.12	1.31		1.47		2.11		1.27		1.66		MINIMUM

LOCATION: LAT. 38 04 25 LONG. 121 51 18, SW SEC. 27, T3N R1E  
0.4 MILE SOUTHWEST OF COLLINSVILLE 3.3 MILES NORTHEAST  
OF PITTSBURG.

PERIOD OF RECORD: JUNE 1929 TO DATE



TABLE B-3 (CONTINUED)

## DAILY TIDES

891110 SACRAMENTO RIVER AT COLLINSVILLE  
(APRIL 1, 1972, THROUGH SEPTEMBER 30, 1974)

DATE	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER		DATE
01	4.23	6.40	2.60	5.20	1.97	5.11	1.68	5.04	6.36	1.75	6.00	2.21	01
	2.67	6.23	1.93	5.94	3.17		3.80		5.00	3.38	5.54	2.87	
02	4.08	6.52	2.15	5.09	6.69	1.84	6.69	1.67	6.36	1.92	5.91	2.36	02
	3.14		2.10		5.22	3.41	5.09	3.82	5.28	3.48	5.71	2.81	
03	6.58	4.03	6.13	1.96	6.71	1.67	6.66	1.77	6.42	2.19	5.77	2.50	03
	6.92	3.35	5.19	2.43	5.26	3.62	5.14	3.69	5.39	3.35	5.84	2.71	
04	6.77	3.81	6.36	1.93	6.71	1.60	6.55	1.83	6.24	2.14	5.60	2.66	04
	6.55	3.46	5.27	2.82	5.21	3.62	5.08	3.59	5.42	3.20	5.91	2.53	
05	7.20	3.95	6.48	1.81	6.37	1.34	6.42	1.82	6.00	2.16	5.29	2.65	05
	6.99	4.13	5.33	3.25	5.14	3.78	5.23	3.89	5.53	3.01	5.97	2.41	
06	7.53	3.80	6.64	1.73	NR	NR	6.37	1.74	5.59	2.02	5.08	2.95	06
	6.43	3.79	5.34	3.42			5.27	3.60	5.54	2.88	6.05		
07	7.11	3.19	6.61	1.64	6.29	1.47	6.06	1.65	5.36	2.28	2.24	4.98	07
	6.21	3.88	5.21	3.53	5.39	3.86	5.19	3.26	5.74		3.45	6.25	
08	7.20	3.15	6.55	1.64	6.10	1.45	5.63	1.70	2.86	5.03	2.34	4.76	08
	6.41	4.40	5.31	3.66	5.51	4.05	5.40	3.68	2.37	5.86	3.73	6.36	
09	7.30	3.15	6.44	1.61	5.99	1.72	5.38	1.77	2.82	4.92	2.17	4.81	09
	6.00	4.05	5.26	3.93	5.53		5.44		2.93	6.18	3.94	6.29	
10	6.45	2.39	6.00	1.33	3.92	5.58	3.10	4.97	2.74	4.64	2.04	4.97	10
	5.18	3.94	4.99	3.84	1.81	5.63	1.93	5.57	3.25	6.31	3.98	6.39	
11	6.13	2.35	5.55	1.32	3.88	5.17	2.78	4.30	2.48	4.62	1.96	5.20	11
	5.05	4.11	5.03		2.00	5.68	1.97	5.61	3.72	6.52	3.69	6.51	
12	5.80	2.22	4.06	5.28	3.44	4.70	2.40	4.02	2.29	4.87	2.11	5.61	12
	4.97		1.54	5.08	2.15	5.73	2.40	5.77	4.00	6.69	3.65	6.73	
13	4.19	5.49	3.71	4.48	3.05	4.41	2.07	4.01	2.18	5.01	2.32	5.79	13
	2.28	4.91	1.47	4.99	2.43	5.93	2.90	6.13	3.91	6.71	3.29		
14	4.13	5.15	3.37	4.22	2.44	4.23	1.85	4.22	1.79	5.01	6.61	2.27	14
	2.22	5.11	1.73	5.33	2.73	6.00	3.34	6.41	3.53	6.73	5.81	2.80	
15	3.99	5.00	3.01	4.22	1.95	4.35	1.71	4.54	1.81	5.18	6.36	2.25	15
	2.30	5.21	2.07	5.42	3.10	6.35	3.65	6.60	3.28		5.95	2.56	
16	3.65	4.95	2.43	4.07	1.87	4.71	1.58	4.73	6.67	1.74	6.17	2.40	16
	2.33	5.43	2.28	5.73	3.40	6.68	3.67	6.78	5.21	2.89	6.16	2.36	
17	3.55	5.25	2.08	4.36	NR	NR	1.58	4.93	6.51	1.66	5.92	2.47	17
	2.78		2.43	5.77			3.56		5.30	2.62	6.23	2.29	
18	5.94	3.07	1.55	4.37	6.99	1.78	6.86	1.56	6.19	1.65	5.78	2.76	18
	5.29	2.47	2.53		5.31	3.81	5.03	3.31	5.54	2.52	6.40	2.30	
19	5.69	2.45	5.93	1.35	7.14	1.58	6.84	1.60	5.98	1.70	5.58	2.98	19
	5.04	2.63	4.54	2.78	5.26	3.65	5.17	3.04	5.59	2.15	6.48		
20	5.90	2.22	6.10	1.18	6.98	1.40	6.71	1.67	5.52	1.79	2.27	5.33	20
	5.13	2.75	4.57	2.84	5.25	3.46	5.38	2.91	5.80	2.18	3.25	6.40	
21	6.07	1.96	6.29	1.17	7.01	1.51	6.44	1.66	5.32	2.06	2.22	5.15	21
	5.22	2.99	4.71	3.11	5.47	3.50	5.58	2.82	5.98		3.54	6.21	
22	6.42	1.92	6.47	1.18	6.86	1.58	6.18	1.80	2.19	5.07	2.25	5.13	22
	5.41	3.45	5.94	3.37	5.60	3.36	5.81	2.72	2.39	6.06	3.94	6.08	
23	6.74	1.91	6.64	1.20	6.51	1.45	5.79	1.95	2.07	4.76	2.22	5.12	23
	5.51	3.61	5.11	3.37	5.55		5.99		2.78	6.15	4.05	5.96	
24	6.75	1.72	6.53	1.19	2.99	5.90	2.63	5.36	2.16	4.80	2.21	5.29	24
	5.35	3.61	5.04	3.27	1.32	5.59	2.14	6.11	3.40	6.28	3.96	5.81	
25	6.55	1.49	6.20	1.17	2.69	5.19	2.38	4.88	2.30	5.02	2.23	5.36	25
	5.20	3.71	5.02	3.21	1.28	5.57	2.41	6.24	3.86	6.30	3.70	5.75	
26	6.40	1.34	5.94	1.17	2.29	4.67	2.32	4.82	2.15	4.97	2.06	5.31	26
	4.87	3.57	5.38		1.53	5.79	3.10	6.45	3.72	6.13	3.31	5.82	
27	5.84	1.18	3.27	5.72	2.02	4.32	2.29	4.71	1.99	5.11	2.20	5.44	27
	4.86		1.50	5.82	1.92	5.96	3.36	6.38	3.67	6.17	3.08		
28	3.56	5.58	3.17	5.46	1.75	4.33	2.01	4.72	1.92	5.06	5.72	2.25	28
	1.21	5.05	1.77	6.12	2.62	6.22	3.60	6.40	3.42	6.12	5.57	2.78	
29	3.40	5.24	2.70	4.88	1.68	4.56	1.90	4.88	1.89	5.13	5.55	2.22	29
	1.27	5.22	1.73	5.99	3.23	6.55	3.63	6.37	3.30		5.52	2.34	
30	3.03	5.15	2.19	4.62	1.97	4.99	1.79	4.95	6.09	1.91	5.34	2.20	30
	1.59	5.64	2.29	6.38	3.63	6.69	3.62		5.20	3.09	5.49	2.11	
31			2.10	5.02			6.40	1.79	6.03	1.98			31
			2.83	6.59			5.97	3.48	5.35	2.95			
MAXIMUM	7.53		6.64		NR		6.86		6.73		6.73		MAXIMUM
MINIMUM	1.18		1.17		NR		1.56		1.65		1.96		MINIMUM

NR - NO RECORD

MAXIMUM GAGE HEIGHT OF RECORD: 9.2 - 4/6/58

ZERO OF GAGE: 1929 0.00 USED  
1929 -3.05 USCGS  
1964 -3.54 USCGS  
1964 TO DATE -3.00 USCGS

TABLE B-3 (CONTINUED)

## DAILY TIDES

E03300 SUISIN BAY AT BENICIA  
(OCTOBER 1, 1973, THROUGH MARCH 30, 1974)

DATE	OCTOBER		NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH		DATE
1	1.99 2.96	0.19 -1.91	1.92 2.29	0.66 1.78	3.15 2.23	0.89 -1.65	3.00 1.04	-0.61 2.68	NR	NR	NR	NR	1
2	1.71 2.56	0.33 1.18	-2.14 0.40	1.84 1.78	2.35 1.33	0.01 -1.16	-0.78 -1.21	2.68 1.18	NR	NR	NR	NR	2
3	-2.11 0.60	1.53 2.35	-2.12 -0.14	1.86 1.43	-1.41 -0.59	2.41 1.21	0.07 -1.36	3.84 1.89	NR	NR	NR	NR	3
4	-2.07 0.62	1.63 2.23	-2.24 -0.71	1.96 1.33	-0.98 -1.16	2.85 1.39	0.71 -1.91	4.05 2.36	NR	NR	NR	NR	4
5	-1.92 0.50	1.93 2.37	-1.95 -0.37	2.54 1.95	-0.62 -1.92	3.11 1.53	1.18 -2.11	4.64 2.65	NR	NR	NR	NR	5
6	-1.65 0.22	2.30 2.64	-1.18 -1.59	2.80 1.70	-0.43 -2.52	3.34 1.70	2.63 4.67	0.97 -2.46	NR	NR	NR	NR	6
7	-1.35 -0.30	2.54 2.47	-1.34 -1.91	3.09 1.93	-0.21 -2.77	3.66 1.91	2.82 4.82	0.73 -2.61	NR	NR	NR	NR	7
8	-1.70 -0.90	2.53 2.54	-1.09 -2.26	3.32 1.91	1.91 3.99	-0.03 -2.94	3.19 4.91	0.67 -2.65	NR	NR	NR	NR	8
9	-1.63 -1.39	2.66 2.40	2.04 3.59	-0.71 -2.29	2.14 4.01	0.07 -3.31	3.22 4.69	0.15 -2.70	NR	NR	NR	NR	9
10	-1.59 -1.76	2.88 1.76	2.15 3.86	-0.49 -2.63	2.17 4.10	0.05 -3.27	3.21 4.15	-0.43 -2.69	NR	NR	NR	NR	10
11	2.47 3.26	-1.21 -1.87	2.24 4.19	0.23 -2.30	2.74 4.64	1.07 -2.89	3.24 3.70	-0.62 -2.25	NR	NR	NR	NR	11
12	2.48 3.43	-0.94 -2.22	2.91 4.22	0.56 -2.55	2.81 4.13	0.15 -2.71	3.71 3.22	-0.50 -1.84	NR	NR	NR	NR	12
13	2.25 3.44	-0.82 -2.43	2.52 4.27	0.37 -2.28	3.36 3.80	0.26 -2.53	3.66 2.29	-0.88 -1.52	NR	NR	3.25 1.81	-2.15 0.21	13
14	2.15 3.59	-0.47 -2.47	2.53 3.50	0.16 -2.66	3.17 3.07	-0.16 -2.58	3.46 1.82	-0.96 -0.45	NR	NR	2.96 1.61	-1.85 0.65	14
15	2.05 3.53	-0.27 -2.46	2.59 3.26	0.29 -2.31	3.08 2.09	-0.69 -2.18	3.64 2.04	1.00 2.04	NR	NR	2.72 1.72	-1.69 2.02	15
16	1.93 3.38	0.05 -2.46	3.26 2.83	0.30 1.80	3.07 1.80	-0.94 -0.94	0.55 -0.67	4.20 2.03	NR	NR	0.91 -1.66	2.52 1.75	16
17	1.98 3.25	0.25 0.43	-2.18 0.43	3.25 3.32	-1.33 -1.38	3.56 1.60	0.72 -1.72	3.61 1.94	NR	NR	0.61 -1.86	2.42 2.02	17
18	-2.39 0.16	2.02 2.84	-1.14 -0.74	3.49 2.18	-0.81 -1.82	3.34 1.54	1.05 -1.64	4.01 2.44	NR	NR	0.44 -1.94	2.55 2.31	18
19	-2.41 -0.03	2.21 2.76	-1.90 -1.94	3.02 1.71	-0.26 -2.38	3.16 1.63	1.03 -1.85	3.85 2.85	NR	NR	0.11 -1.89	2.81 2.62	19
20	-2.08 -0.50	2.51 2.64	-1.42 -1.90	3.48 2.14	0.09 -2.40	3.38 2.40	2.69 4.14	1.05 -1.83	NR	NR	-0.19 -1.69	3.02 2.88	20
21	-1.95 -0.90	2.87 2.64	-0.76 -2.15	3.68 2.15	2.28 4.15	1.01 -1.80	2.58 3.76	0.71 -2.11	NR	NR	-0.89 -1.95	2.90 2.90	21
22	-1.56 -0.76	3.39 3.18	2.44 4.05	-0.12 -2.21	2.52 3.69	0.81 -2.51	2.44 3.49	0.37 -2.32	NR	NR	2.88 2.82	-1.30 -1.79	22
23	-0.89 -1.89	3.20 2.21	2.50 3.78	0.16 -2.58	2.20 3.58	0.45 -2.75	2.35 3.57	0.26 -2.23	NR	NR	3.08 2.80	-1.55 -1.49	23
24	-1.57 -2.26	3.06 2.66	2.64 3.47	0.24 -2.90	2.11 3.36	0.37 -2.85	2.61 3.40	0.28 -2.04	NR	NR	3.28 2.60	-1.99 -1.12	24
25	2.13 3.12	-1.22 -2.55	2.09 3.67	0.36 -2.49	2.10 3.30	0.48 -2.83	2.85 3.26	0.27 -1.87	NR	NR	3.38 2.66	2.00 -0.75	25
26	1.99 3.18	-0.95 -2.65	2.46 3.51	0.72 -2.65	2.29 3.37	0.58 -2.31	2.79 2.60	-0.18 -1.92	NR	NR	3.58 2.72	-2.05 0.21	26
27	1.88 2.98	-0.66 -2.77	2.24 2.94	0.66 -2.90	2.75 3.20	0.67 -2.39	2.55 2.11	-0.49 -1.64	NR	NR	4.01 2.75	-1.89 0.80	27
28	1.86 3.00	-0.31 -2.74	1.82 2.68	0.47 -2.66	2.54 2.80	0.45 -2.27	2.66 1.73	-0.67 -1.13	NR	NR	3.86 2.12	-2.29 0.65	28
29	1.68 2.76	-0.10 -2.74	2.17 2.71	0.85 -2.13	2.72 4.50	0.50 -1.95	2.77 1.40	-0.71 -0.66			3.61 2.50	-1.99 1.64	29
30	1.68 2.55	0.13 -2.58	2.60 3.71	1.54 -0.94	2.46 1.81	-0.03 -1.47	2.98 1.24	-0.98 -0.09			4.04 2.30	-1.79 2.54	30
31	1.78 2.57	0.53 -2.16			2.67 1.63	-0.05 -0.78	3.17 1.51	-1.18 2.54			0.80 -2.29	3.02 2.54	31
MAXIMUM	3.59		4.27		4.64		4.91		NR		NR		MAXIMUM
MINIMUM	-2.77		-2.90		-3.31		-2.70		NR		NR		MINIMUM

NR - NO RECORD

LOCATION: LAT. 38 02 27 LONG. 122 08 04, SW SEC 6, T2N, R2W,  
ON CHANNEL SIDE OF WHARF IMMEDIATELY SE OF BENICIA.PERIOD OF RECORD: 1929 TO DATE  
INTERMITTENT 1929 TO 1940



TABLE B-3 (CONTINUED)

## DAILY TIDES

E03300 SUISIN BAY AT BENICIA  
(APRIL 1, 1974, THROUGH SEPTEMBER 30, 1974)

DATE	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER		DATE
1	0.81	3.45	-1.19	2.30	-2.15	2.15	-2.31	2.15	-2.25	2.18	3.12	-1.79	1
	-1.92	3.08	2.00	3.15	-0.25	3.78	0.49	3.82	0.09		2.71	-0.77	
2	-0.09	3.32	-1.80	2.30	-2.39	2.31	-2.36	2.23	3.50	-2.08	3.00	-1.62	2
	-2.05	3.25	-1.79	3.42	0.05	3.90	0.53	3.80	2.47	0.13	2.90	-0.97	
3	-0.79	3.28	-2.19	2.44	-2.55	2.41	-2.31	2.26	3.45	-1.97	2.82	-1.40	3
	-2.04	3.46	-1.39	3.65	0.21		0.34		2.51	-0.05	3.00	-1.07	
4	-1.35	3.35	-2.35	2.46	3.85	-2.75	3.61	-2.54	3.30	-1.95	2.70	-1.13	4
	-1.75	3.92	-0.99	3.72	2.35	0.32	2.21	0.34	2.58	-0.26	3.13	-1.25	
5	-1.36	3.65	-2.59	2.54	3.53	-3.02	3.57	-2.41	3.03	-1.85	2.43	-0.97	5
	-1.09		-0.32		2.21	0.43	2.34	0.35	2.08	-0.54	3.23	-1.42	
6	4.20	-1.79	3.95	-2.79	3.46	-2.95	3.48	-2.21	2.64	-1.77	2.15	-0.48	6
	3.16	1.00	2.58	0.06	2.37	0.56	2.40	0.16	2.72	-0.61	3.25	-1.50	
7	3.88	-2.16	3.84	-2.79	3.38	-2.78	3.16	-2.25	2.40	-1.36	1.93	0.05	7
	3.01	-0.40	2.48	0.15	2.56	0.70	2.33	-0.05	2.88	-0.75	3.32	-1.52	
8	4.10	-1.99	3.74	-2.68	3.32	-2.60	2.75	-1.94	2.04	-1.16	1.75	0.43	8
	3.16	0.18	2.48	0.51	2.78	0.85	2.62	0.05	3.06	-0.76	3.34		
9	4.26	-1.85	3.56	-2.69	3.09	-2.21	2.53	-1.90	1.01	-0.53	-1.69	1.83	9
	2.92	0.12	2.38	0.55	2.72	0.66	2.59	-0.29	3.31		0.71	3.32	
10	3.35	-2.45	3.12	-2.85	2.58	-1.95	2.03	-1.68	-0.46	1.55	-1.88	2.05	10
	2.06	0.31	2.10	0.61	2.76	0.47	2.65	-0.95	-0.16	3.35	0.77	3.52	
11	3.05	-2.09	2.65	-2.69	2.12	-1.71	1.37	-1.38	-1.35	1.56	-2.04	2.42	11
	2.02	0.71	2.12	0.81	2.75		2.71		0.36	3.52	0.47	3.62	
12	2.82	-1.82	2.36	-2.39	-0.04	1.64	-1.09	1.10	-1.51	1.86	-1.94	2.66	12
	1.96	0.91	2.08		-1.43	2.80	-0.83	2.89	0.70	3.72	0.13	3.76	
13	2.58	-1.49	0.41	1.64	-0.50	1.33	-1.47	1.05	-1.77	2.03	-1.92	2.89	13
	1.94		-1.98	2.00	-0.91	2.94	-0.32	3.22	0.59	3.85	-0.36	3.70	
14	0.81	2.26	0.14	1.34	-1.18	1.22	-1.92	1.24	-2.20	2.19	-1.95	3.01	14
	-1.49	2.06	-1.70	2.31	-0.57	3.07	0.14	3.48	0.27	3.93	-1.07		
15	0.65	2.00	-0.42	1.26	-1.80	1.41	-2.19	1.55	-2.34	2.36	3.54	-1.96	15
	-1.49	2.18	-1.36	2.48	-0.25	3.41	0.30	3.70	-0.13	3.86	3.18	-1.50	
16	0.25	2.02	NR	NR	-2.06	1.81	-2.47	1.87	-2.51	2.41	3.31	-1.78	16
	-1.29	2.42			0.16	3.88	0.34	3.95	-0.68		3.41	-1.74	
17	0.00	2.20	NR	NR	-2.38	2.09	-2.59	2.10	3.77	-2.61	3.03	-1.60	17
	-1.19	2.85			0.43	4.18	0.16	4.14	2.56	-1.02	3.59	-1.90	
18	-0.79	2.36	NR	NR	-2.47	2.43	-2.76	2.26	3.92	-2.57	2.89	-1.21	18
	-1.32	2.76			0.50	4.35	-0.12		2.60	-1.30	3.69	-1.95	
19	-1.52	2.11	NR	NR	-2.75	2.47	4.15	-2.80	3.22	-2.39	2.63	-0.86	19
	-1.15	2.94			0.28		2.44	-0.38	2.95	-1.63	3.65	-1.90	
20	-2.09	2.21	NR	NR	4.28	-3.10	4.00	-2.71	2.81	-2.10	2.38	-0.35	20
	-0.99	3.16			2.49	0.12	2.65	-0.72	3.21	-1.64	3.51	-1.81	
21	-2.38	2.38	NR	NR	4.26	-2.96	3.72	-2.65	2.53	-1.72	2.21	0.19	21
	-0.79				2.73	0.11	2.86	-0.83	3.37	-1.66	3.31		
22	3.52	-2.62	3.72	-3.55	4.08	-2.86	3.42	-2.33	2.23	-1.22	-1.85	2.15	22
	2.50	-0.39	2.12	0.01	2.79	-0.26	3.17	-0.92	3.34	-1.73	0.63	3.12	
23	3.96	-2.70	3.85	-3.45	3.72	-2.80	2.98	-1.93	1.82	-0.61	-1.74	2.13	23
	2.70	0.01	2.31	0.06	2.78	-0.54	3.35	-0.99	3.39		0.79	3.02	
24	4.01	-2.86	3.75	-3.45	3.05	-2.76	2.52	-1.56	-1.72	1.84	-1.73	2.28	24
	2.55	0.20	2.26	-0.09	2.81	-0.94	3.50		0.13	3.39	0.66	2.80	
25	3.81	-3.10	3.44	-3.49	2.34	-2.71	-1.28	2.02	-1.67	1.97	-1.80	2.27	25
	2.40	0.40	2.28	-0.19	2.80		-1.11	3.56	0.51	3.30	0.26	2.68	
26	3.64	-3.09	3.14	-3.15	-1.32	1.73	-1.34	1.80	-1.87	1.95	-1.89	2.40	26
	2.11	0.31	2.66	-0.09	-2.19	3.04	-0.25	3.62	0.43	3.11	-0.14	2.80	
27	3.04	-3.29	2.86	-2.58	-1.65	1.36	-1.61	1.88	-2.08	2.09	-1.69	2.61	27
	2.00	0.35	3.01		-1.50	3.24	-0.03	3.47	0.26	3.11	-0.43	2.78	
28	2.75	-2.99	-0.39	2.48	-1.98	1.45	-1.94	1.69	-2.09	2.18	-1.64	2.70	28
	2.26		-2.12	3.18	-0.63	3.47	0.25	3.39	0.06	3.14	-0.86	2.66	
29	0.11	2.45	-0.99	2.01	-2.16	1.68	-2.16	1.84	-2.10	2.27	-1.65	2.73	29
	-2.79	2.46	-1.96	3.31	-0.02	3.68	0.28	3.38	-0.08	3.14	-1.40		
30	-0.46	2.28	-1.59	1.86	-2.06	2.02	-2.21	2.05	-2.07	2.38	2.54	-1.56	30
	-2.45	2.85	-1.25	3.62	0.27	3.81	0.26	3.42	-0.38		2.78	-1.68	
31			-1.79	2.12			-2.27	2.10	3.14	-1.95			31
			-0.65	3.72			0.20	3.45	2.52	-0.59			
MAXIMUM	4.26		NR		4.35		4.15		3.93		3.76		MAXIMUM
MINIMUM	-3.29		NR		-3.10		-2.80		-2.61		-2.04		MINIMUM

NR - NO RECORD

MAXIMUM GAGE HEIGHT OF RECORD: 5.7 - 4/6/58

ZERO OF GAGE: 1929 TO 1940 -2.21 USCGS  
1940 TO 1942 -5.00 USCGS  
1942 TO DATE 0.00 USCGS

TABLE B-4

## CORRECTIONS AND REVISIONS TO PREVIOUSLY PUBLISHED REPORTS OF SURFACE WATER DATA

Location of Error or Revision					Change or Revision	
Report	Page	Mile & Bank	Name	Item	From	To
Bulletin No. 23-62	394		Suisun Bay at Benicia Arsenal	<u>1962</u> Daily Maximum and Minimum Tides for the period 3-1-62 to 3-28-62, inclusive	Published values	2.00 feet lower than published values
				Maximum for March 1962	16.72	14.72
Bulletin No. 130-63	B-7		Suisun Bay at Benicia Arsenal	<u>1963</u> Maximum Gage Height of Record	6.72	5.7
				Date of Maximum Gage Height of Record	3-5-62	4-6-58
Bulletin No. 130-64	48		Suisun Bay at Benicia Arsenal	<u>1964</u> Maximum Gage Height of Record	6.72	5.7
				Date of Maximum Gage Height of Record	3-5-62	4-6-58
Bulletin No. 130-64	52		City of Vallejo from Cache Slough	Total acre-feet	Published values	Values published in Bulletin No. 130-66 Table B-2
				Average cubic feet per second	Published values	Values published in Bulletin No. 130-66 Table B-2
				Monthly quantities in percent of seasonal	Published values	Values published in Bulletin No. 130-66 Table B-2
Bulletin No. 130-67	44		Sacramento River at Collinsville	<u>1967</u> Daily Maximum and Minimum Tides		<u>Notation:</u> In order to machine process the data it was necessary to avoid negative gage heights. Subtract 10.00 feet to obtain gage heights.
Bulletin No. 130-67	45		Suisun Bay at Benicia Arsenal	Daily Maximum and Minimum Tides		<u>Notation:</u> In order to machine process the data it was necessary to avoid negative gage heights. Subtract 10.00 feet to obtain gage heights.



## Appendix C

### GROUND WATER MEASUREMENTS

This appendix contains summary and selected information concerning the level of ground water in wells within 36 ground water basins or areas in the Central Coastal Area. Wells are selected to reflect the ground water conditions of the area. These wells are continuously reviewed and, when conditions dictate, replacement wells are located and measured.

Earlier editions of this report contained a tabulation of individual measurements of ground water levels at wells. This type of data collected by the Department will be available at the various district offices of the Department. Please see the introduction at the front of this volume for the addresses of these district offices.

Table C-1 shows the average change in ground water levels for the various basins in the Central Coastal Area from spring 1973 to spring 1974. This table also shows the number of well measurements collected in the various areas. Figure C-2 contains graphical presentations of the average levels of ground water in the spring for the past several years. Figure C-3 is a graphical representation of the fluctuation of ground water level in certain selected wells for the past several years. An attempt has been made to select wells that represent conditions in the basin where the well is located. However, some caution in the use of these data is in order because ground water conditions can vary markedly with relatively small changes in horizontal location.

Two numbering systems are used by the Department to facilitate processing of water level measurement data. The two systems are the Region and Basin Designation and the State Well Numbering System. The regions used in Bulletin No. 130 are geographic areas defined in Section 13200 of the Water Code. This volume comprises the southern portion of North Coastal Region No. 1, the northern portion of Central Coastal Region No. 3, and all of San Francisco Bay Region No. 2. A decimal system of the form 0-00.00 has been selected according to geographic regions, ground water basins, and subbasins or subareas as follows:

	1	-	18	.	02
Region (North Coastal)					
Ground Water Basin (Santa Rosa Valley)					
Subbasin or Subarea (Healdsburg Area)					

The State Well Numbering System is based on township, range, and section subdivisions of the public land survey. The number of a well, assigned in accordance with this system, is referred to as the State Well Number, as illustrated below on the left.

	17N	/	11W	-	18	J	04	M
Township								
Range								
Section								
Tract								
Sequence Number								
Base and Meridian								

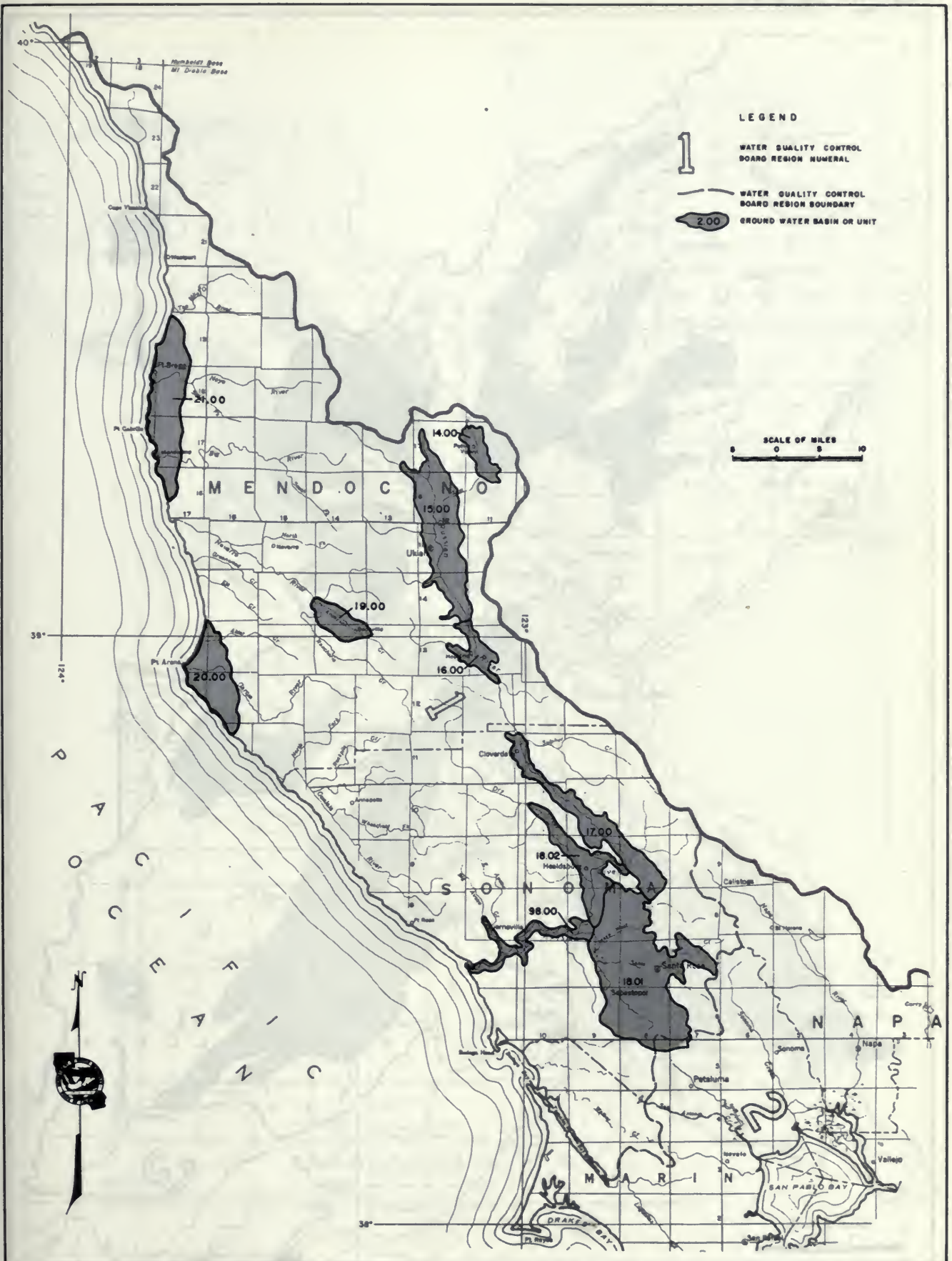
D	C	B	A
E	F	G	H
M	L	K	J
N	P	Q	R

This number identifies and locates the well. In the example, the well is in Township 17 North, Range 11 West, Tract J of Section 18, located in the Mount Diablo Base and Meridian. A section is divided into 40-acre tracts as shown above on the right. Sequence numbers in a tract are generally assigned in chronological order. The example designates the fourth well to be assigned a number in Tract J.

INDEX TO GROUND WATER MEASUREMENT DATA  
IN THE CENTRAL COASTAL AREA

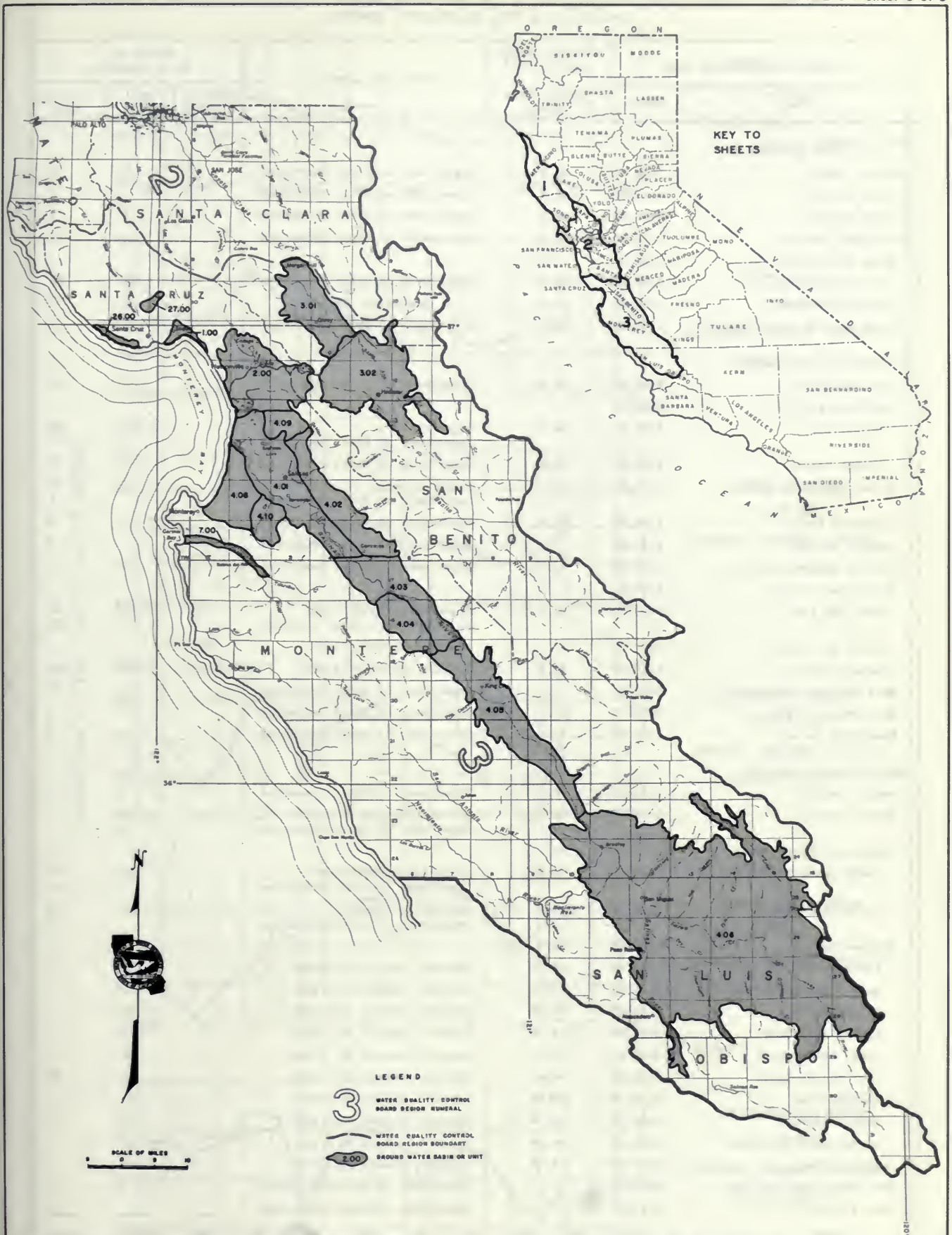
<u>Number</u>	<u>Basin</u>	<u>Page</u>
NORTH COASTAL REGION 1-00.00 (Figure C-1, Sheet 1)		
1-14.00	Potter Valley . . . . .	24, 25
1-15.00	Ukiah Valley . . . . .	24, 25, 29
1-16.00	Sanel Valley . . . . .	24, 25, 29
1-17.00	Alexander Valley . . . . .	24, 25, 29
1-18.00	Santa Rosa Valley	
1-18.01	Santa Rosa Area . . . . .	24, 25, 29
1-18.02	Healdsburg Area . . . . .	24, 25, 29
1-19.00	Anderson Valley . . . . .	
1-20.00	Point Arena . . . . .	
1-21.00	Fort Bragg Terrace . . . . .	
1-98.00	Lower Russian River Valley . . . . .	24
SAN FRANCISCO BAY REGION 2-00.00 (Figure C-1, Sheet 2)		
2-01.00	Petaluma Valley . . . . .	24, 26, 30
2-02.00	Napa-Sonoma Valley	
2-02.01	Napa Valley . . . . .	24, 26, 30
2-02.02	Sonoma Valley . . . . .	24, 26, 30
2-03.00	Suisun-Fairfield Valley . . . . .	24, 26, 30
2-04.00	Pittsburg Plain . . . . .	24, 26
2-05.00	Clayton Valley . . . . .	24
2-06.00	Ygnacio Valley . . . . .	24, 27, 30
2-09.00	Santa Clara Valley	
2-09.01	East Bay Area . . . . .	24, 27, 31
2-09.02	South Bay Area . . . . .	24, 27, 31, 32
2-10.00	Livermore Valley . . . . .	24, 27, 32
2-22.00	Half Moon Bay Terrace . . . . .	24, 27, 33
2-24.00	San Gregorio Valley . . . . .	24, 28, 33
2-26.00	Pescadero Valley . . . . .	24, 28, 33
CENTRAL COASTAL REGION 3-00.00 (Figure C-1, Sheet 3)		
3-01.00	Soquel Valley . . . . .	24, 28, 33
3-02.00	Pajaro Valley . . . . .	24
3-03.00	Gilroy-Hollister Valley	
3-03.01	South Santa Clara County . . . . .	24, 28, 34
3-03.02	San Benito County . . . . .	24, 28, 33
3-04.00	Salinas Valley	
3-04.01	Pressure Area . . . . .	24, 34
3-04.02	East Side Area . . . . .	24
3-04.03	Forebay Area . . . . .	24
3-04.04	Arroyo Seco Cone . . . . .	24
3-04.05	Upper Valley Area . . . . .	24, 34
3-04.06	Paso Robles Basin . . . . .	24
3-04.08	Seaside Area . . . . .	24
3-04.09	Langley Area . . . . .	24
3-04.10	Corral De Tierra Area . . . . .	24
3-07.00	Carmel Valley . . . . .	24
3-26.00	West Santa Cruz Terrace . . . . .	24
3-27.00	Scotts Valley . . . . .	24







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GROUND WATER BASINS IN THE CENTRAL COASTAL AREA



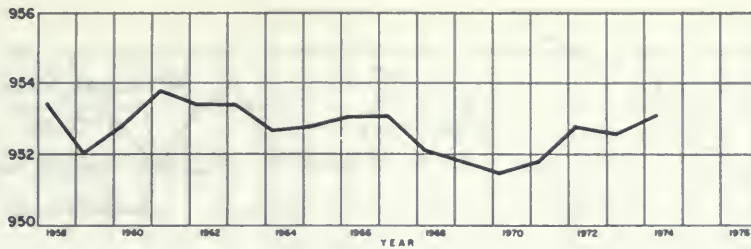
TABLE C-1  
AVERAGE CHANGE OF GROUND WATER LEVELS  
AND SUMMARY OF WELL MEASUREMENTS REPORTED

Ground Water Basin or Area		Average Change Spring 1973 to Spring 1974 in Feet	Measuring Agency	Number of Wells Reported		
Name	Number			Monthly 1973-74	Fall 1973	Spring 1974
NORTH COASTAL REGION						
Potter Valley	1-14.00	+0.6	Department of Water Resources		2	2
Ukiah Valley	1-15.00	+1.0	Department of Water Resources		7	7
Sanel Valley	1-16.00	+2.8	Department of Water Resources		3	3
Alexander Valley	1-17.00	+4.0	Department of Water Resources		11	11
Santa Rosa Valley	1-18.00					
Santa Rosa Area	1-18.01	+0.4	Department of Water Resources		20	21
Healdsburg Area	1-18.02	+1.9	U. S. Geological Survey		8	9
Lower Russian River Valley	1-98.00	+1.0	Department of Water Resources		2	2
SAN FRANCISCO BAY REGION						
Petaluma Valley	2-01.00	+0.9	Department of Water Resources		9	10
Napa-Sonoma Valley	2-02.00					
Napa Valley	2-02.01	+0.5	Napa County Department of Water Resources		100 5	93 5
Sonoma Valley	2-02.02	-0.8	Department of Water Resources		9	10
Suisun-Fairfield Valley	2-03.00	+0.7	Solano County Department of Water Resources	11	14	13 1
Pittsburg Plain	2-04.00	-0.6	Department of Water Resources		6	5
Clayton Valley	2-05.00		Department of Water Resources			7
Ygnacio Valley	2-06.00	+0.7	Department of Water Resources		5	5
Santa Clara Valley	2-09.00					
East Bay Area	2-09.01	+0.3	Alameda County FC & WCD Alameda County Water District	3	44 443	42 480
South Bay Area	2-09.02	+7.3	Santa Clara Valley WD	462		
Livermore Valley	2-10.00	+3.3	Alameda County FC & WCD	12	140	139
Half Moon Bay Terrace	2-22.00	-0.5	Department of Water Resources		6	7
San Gregorio Valley	2-24.00	-0.7	Department of Water Resources		5	5
Pescadero Valley	2-26.00	-1.1	Department of Water Resources		7	6
CENTRAL COASTAL REGION						
Soquel Valley	3-01.00	+0.2	Department of Water Resources		5	5
Pajaro Valley	3-02.00	+2.9*	Monterey County FC & WCD Department of Water Resources		35 6	
Gilroy-Hollister Valley	3-03.00	+4.1				
South Santa Clara County	3-03.01	+10.0	Santa Clara Valley WD Department of Water Resources			40 17
San Benito County	3-03.02	+0.2	San Benito County Department of Water Resources			79 8
Salinas Valley	3-04.00	+2.3				
Pressure Area	3-04.01	+2.6*	Monterey County FC & WCD		137	
East Side Area	3-04.02	+3.9*	Monterey County FC & WCD		89	
Forebay Area	3-04.03	+0.5*	Monterey County FC & WCD		45	
Arroyo Seco Cone	3-04.04	+3.5*	Monterey County FC & WCD		18	
Upper Valley Area	3-04.05	+1.0*	Monterey County FC & WCD		37	
Paso Robles Basin	3-04.06	+0.4	San Luis Obispo FC & WCD			29
Seaside Area	3-04.08	+0.8*	Monterey County FC & WCD		15	
Langley Area	3-04.09	-3.1*	Monterey County FC & WCD		15	
Corral de Tierra Area	3-04.10	+5.8*	Monterey County FC & WCD		29	
Carmel Valley	3-07.00	+1.3*	Monterey County FC & WCD		29	
West Santa Cruz Terrace	3-26.00		Department of Water Resources		2	2
Scotts Valley	3-27.00		Department of Water Resources			4
TOTAL				488	1308	1067

\*Average change determined from water level measurements made during fall of 1972 and fall of 1973.



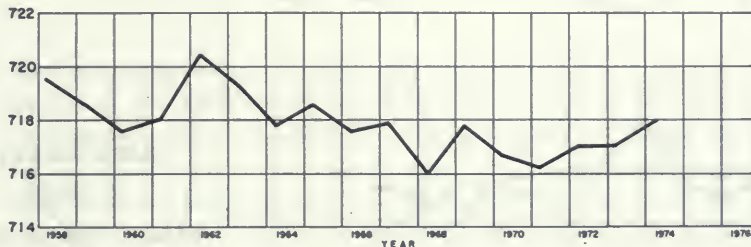
ELEVATION IN FEET - U. S. C. &amp; G. S. DATUM

**POTTER VALLEY**

I - 14.00

AVERAGE GROUND SURFACE

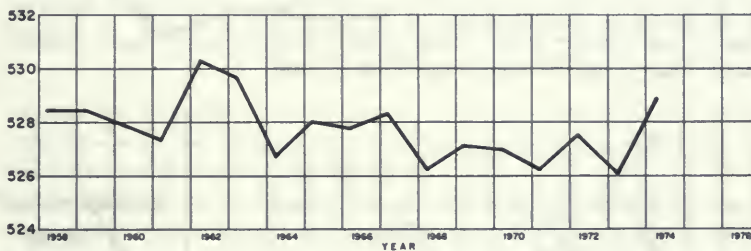
ELEVATION 960'

**UKIAH VALLEY**

I - 15.00

AVERAGE GROUND SURFACE

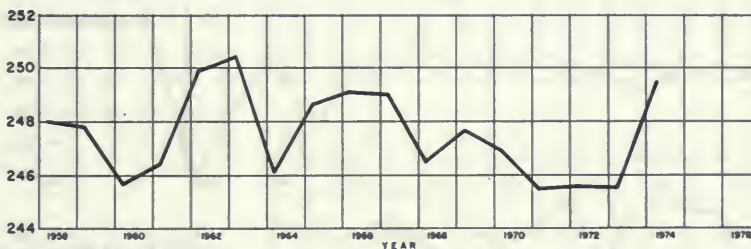
ELEVATION 725'

**SANEL VALLEY**

I - 16.00

AVERAGE GROUND SURFACE

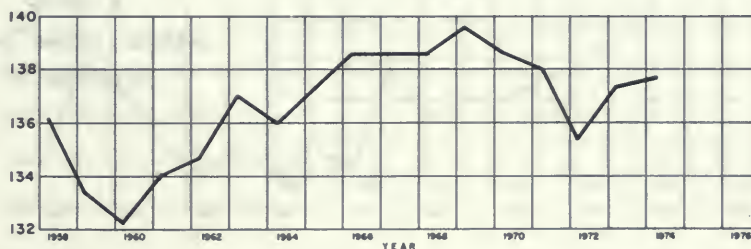
ELEVATION 535'

**ALEXANDER VALLEY**

I - 17.00

AVERAGE GROUND SURFACE

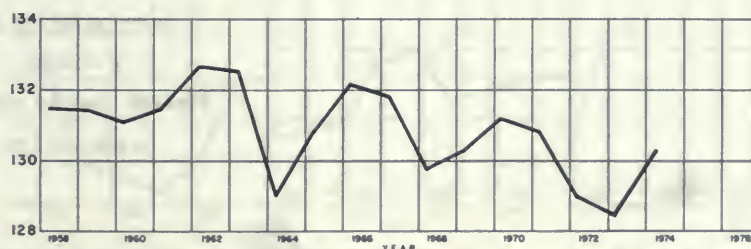
ELEVATION 255'

**SANTA ROSA AREA**

I - 18.01

AVERAGE GROUND SURFACE

ELEVATION 150'

**HEALDSBURG AREA**

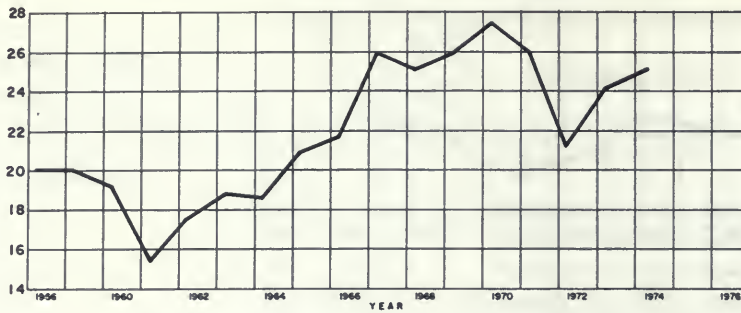
I - 18.02

AVERAGE GROUND SURFACE

ELEVATION 145'

**FLUCTUATION OF AVERAGE GROUND WATER LEVEL IN SELECTED AREAS**

ELEVATION IN FEET - U.S.C. &amp; G.S. DATUM

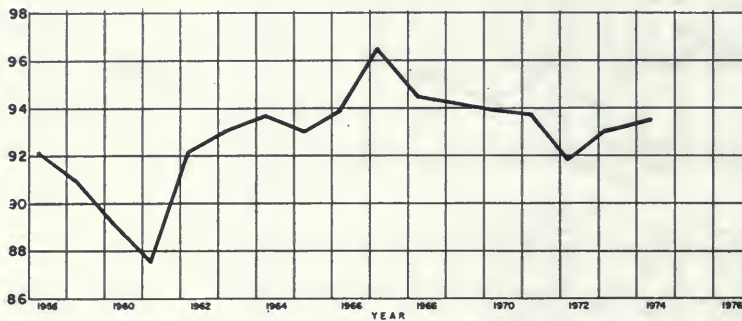


## PETALUMA VALLEY

2-01.00

AVERAGE GROUND SURFACE

ELEVATION 42'

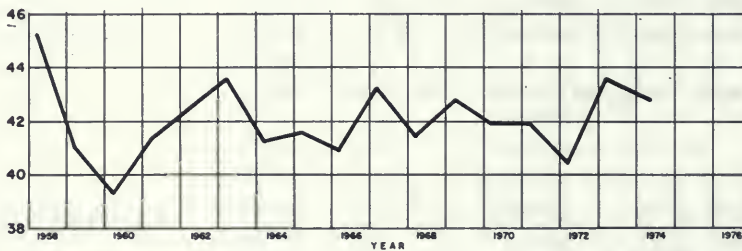


## NAPA VALLEY

2-02.01

AVERAGE GROUND SURFACE

ELEVATION 105'

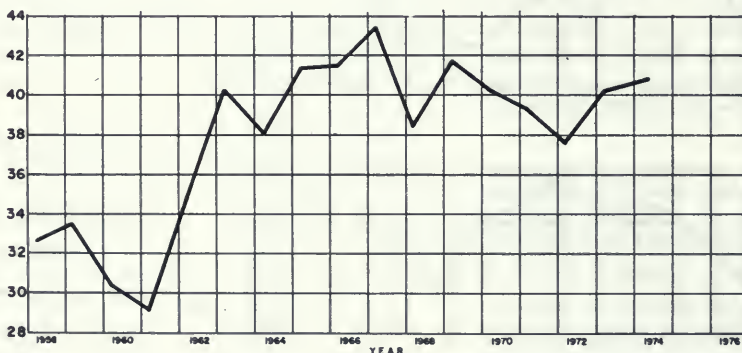


## SONOMA VALLEY

2-02.02

AVERAGE GROUND SURFACE

ELEVATION 60'

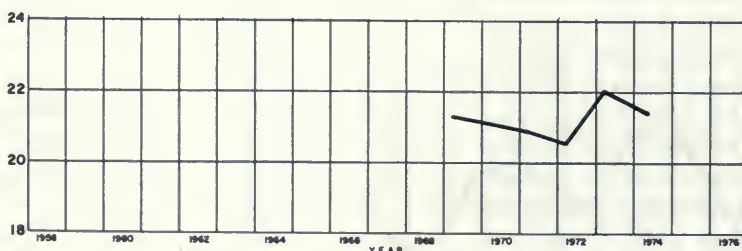


## SUISUN-FAIRFIELD VALLEY

2-03.00

AVERAGE GROUND SURFACE

ELEVATION 47'



## PITTSBURG PLAIN

2-04.00

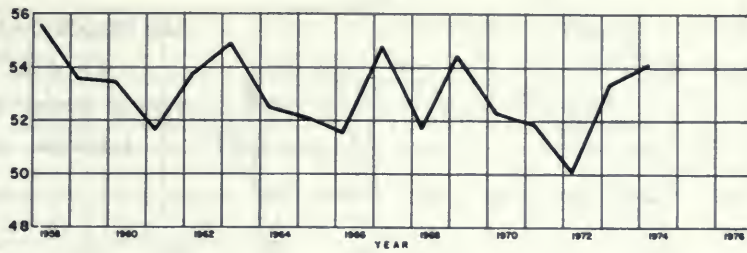
AVERAGE GROUND SURFACE

ELEVATION 55'

FLUCTUATION OF AVERAGE GROUND WATER LEVEL IN SELECTED AREAS



ELEVATION IN FEET - U.S.C. &amp; G.S. DATUM

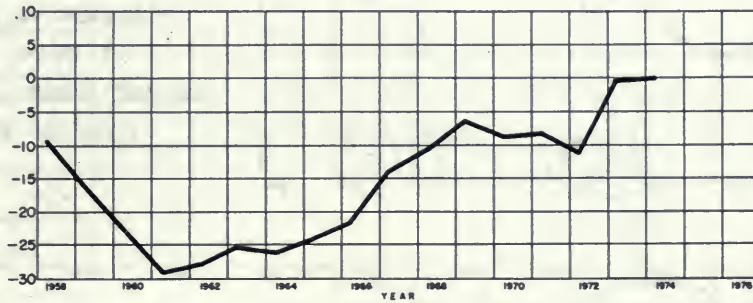


YGNACIO VALLEY

2 - 06.00

AVERAGE GROUND SURFACE

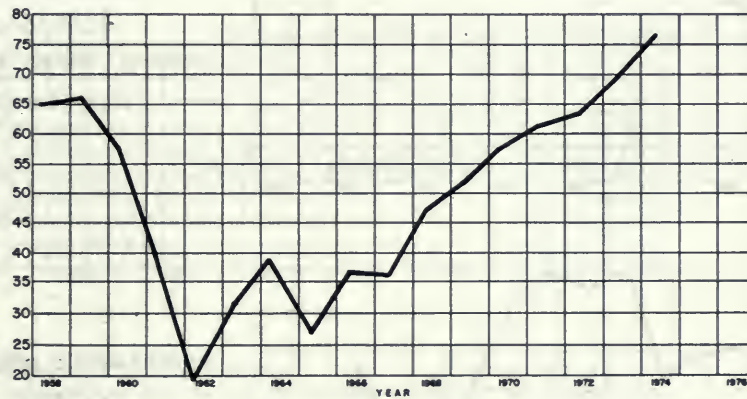
ELEVATION 70'

SANTA CLARA VALLEY  
EAST BAY AREA

2 - 09.01

AVERAGE GROUND SURFACE

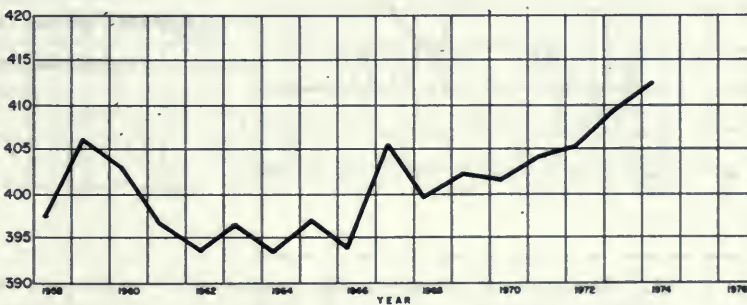
ELEVATION 34'

SANTA CLARA VALLEY  
SOUTH BAY AREA

2 - 09.02

AVERAGE GROUND SURFACE

ELEVATION 155'

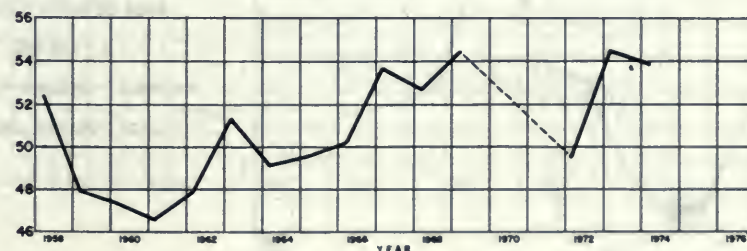


LIVERMORE VALLEY

2 - 10.00

AVERAGE GROUND SURFACE

ELEVATION 460'



HALF MOON BAY TERRACE

2 - 22.00

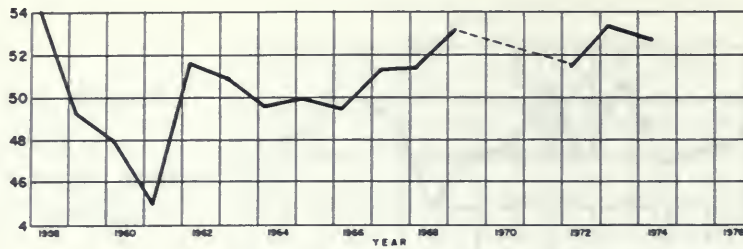
AVERAGE GROUND SURFACE

ELEVATION 70'

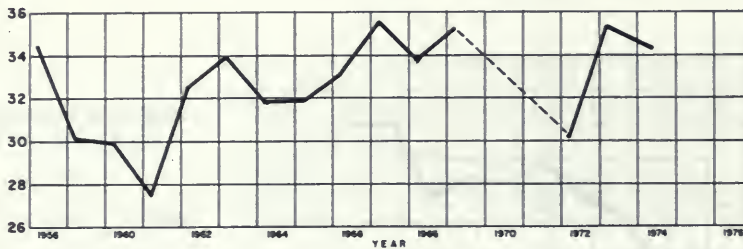
FLUCTUATION OF AVERAGE GROUND WATER LEVEL IN SELECTED AREAS



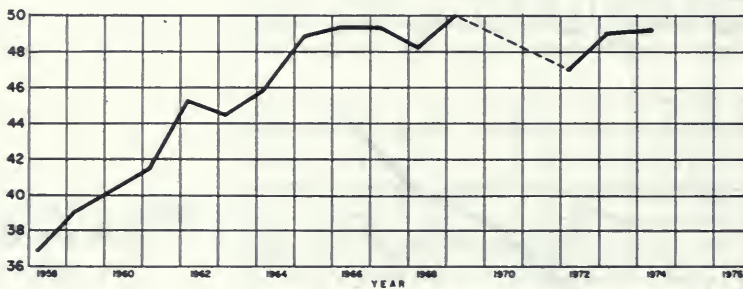
ELEVATION IN FEET - U. S. C. & G. S. DATUM



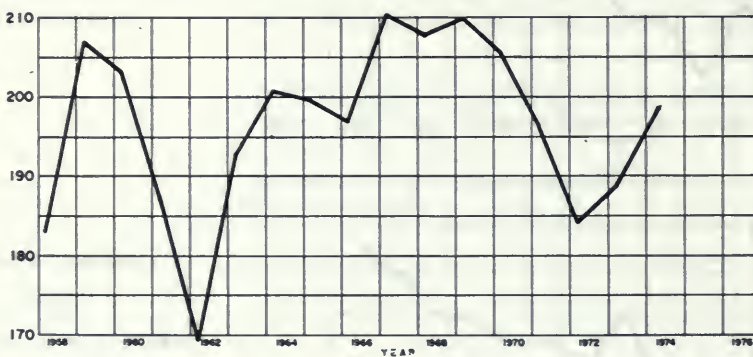
SAN GREGORIO VALLEY  
2-24.00  
AVERAGE GROUND SURFACE  
ELEVATION 60'



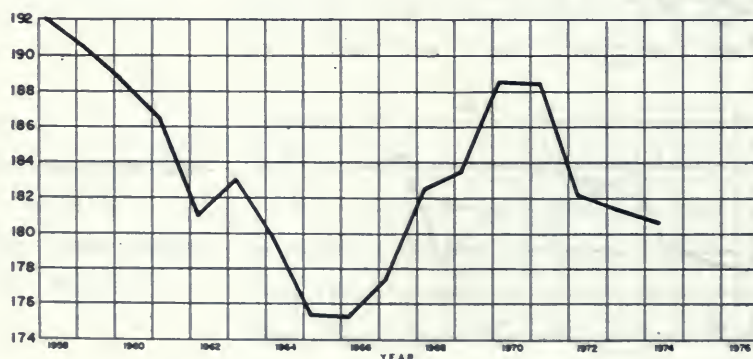
PESCADERO VALLEY  
2-26.00  
AVERAGE GROUND SURFACE  
ELEVATION 40'



SOQUEL VALLEY  
3-01.00  
AVERAGE GROUND SURFACE  
ELEVATION 110'



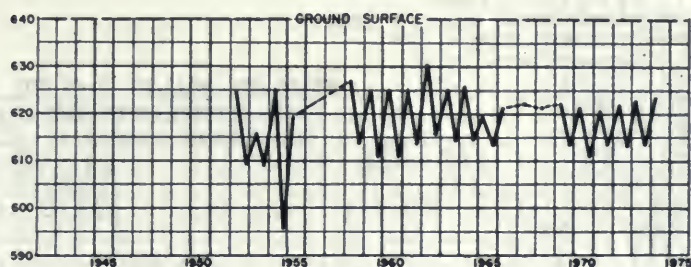
SOUTH SANTA CLARA COUNTY  
3-03.01  
AVERAGE GROUND SURFACE  
ELEVATION 240'



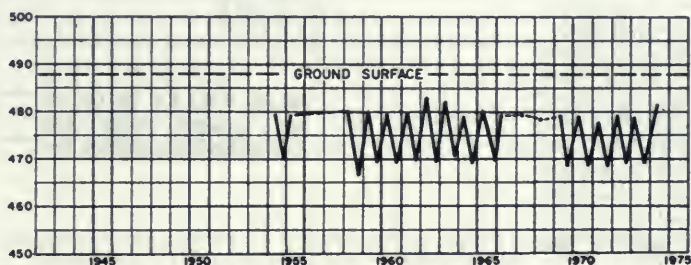
SAN BENITO COUNTY  
3-03.02  
AVERAGE GROUND SURFACE  
ELEVATION 260'

FLUCTUATION OF AVERAGE GROUND WATER LEVEL IN SELECTED AREAS

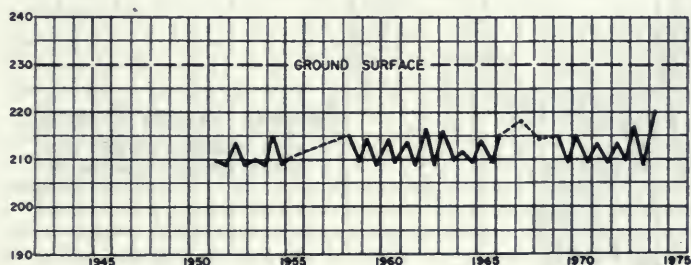
ELEVATION IN FEET - U. S. G. S. DATUM



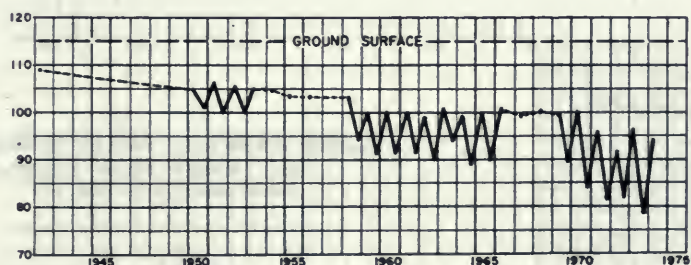
UKIAH VALLEY (1-15.00)  
WELL NUMBER 15N/12W-8L1  
GROUND SURFACE ELEVATION 640'



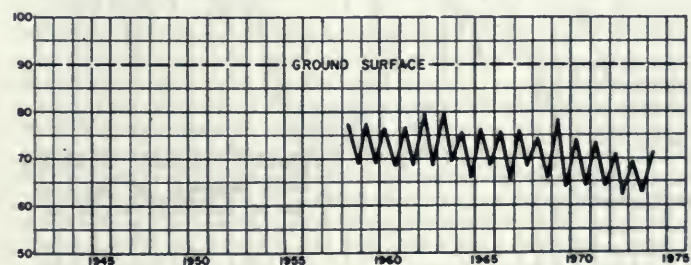
SANEL VALLEY (1-16.00)  
WELL NUMBER 13N/11W-19P1  
GROUND SURFACE ELEVATION 488'



ALEXANDER VALLEY (1-17.00)  
WELL NUMBER 10N/9W-18B1  
GROUND SURFACE ELEVATION 230'



SANTA ROSA AREA (1-18.01)  
WELL NUMBER 6N/8W-13R1  
GROUND SURFACE ELEVATION 115'

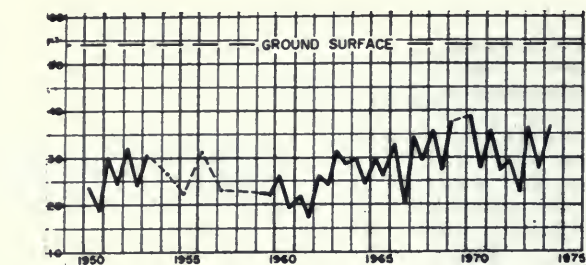


HEALDSBURG AREA (1-18.02)  
WELL NUMBER 9N/9W-28N1  
GROUND SURFACE ELEVATION 90'

----- CONNECTS MEASUREMENTS MADE AT INTERVALS OF A YEAR OR MORE

## FLUCTUATION OF WATER LEVEL IN WELLS

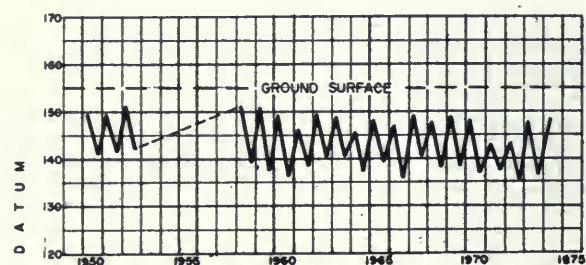




PETALUMA VALLEY (2-01.00)

WELL NUMBER 5N/7W-26R1

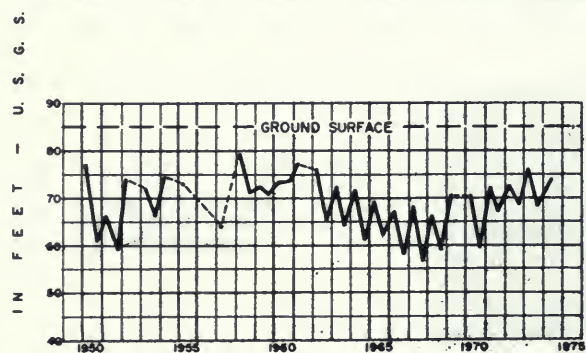
GROUND SURFACE ELEVATION 54'



NAPA VALLEY (2-02.01)

WELL NUMBER 7N/5W-9Q2

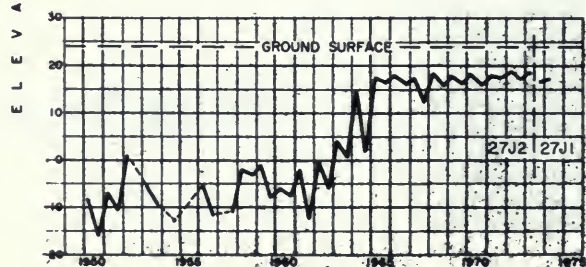
GROUND SURFACE ELEVATION 155'



SONOMA VALLEY (2-02.02)

WELL NUMBER 5N/5W-17C1

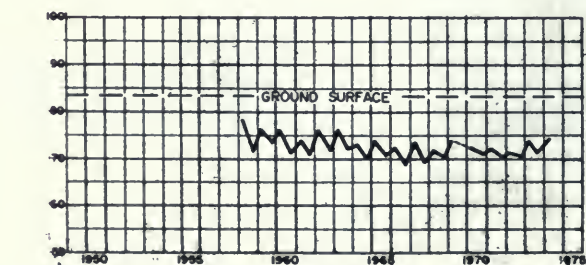
GROUND SURFACE ELEVATION 85'



SUISUN-FAIRFIELD VALLEY (2-03.00)

WELL NUMBER 5N/2W-27J2, 27J1

GROUND SURFACE ELEVATION 24'



YGNACIO VALLEY (2-06.00)

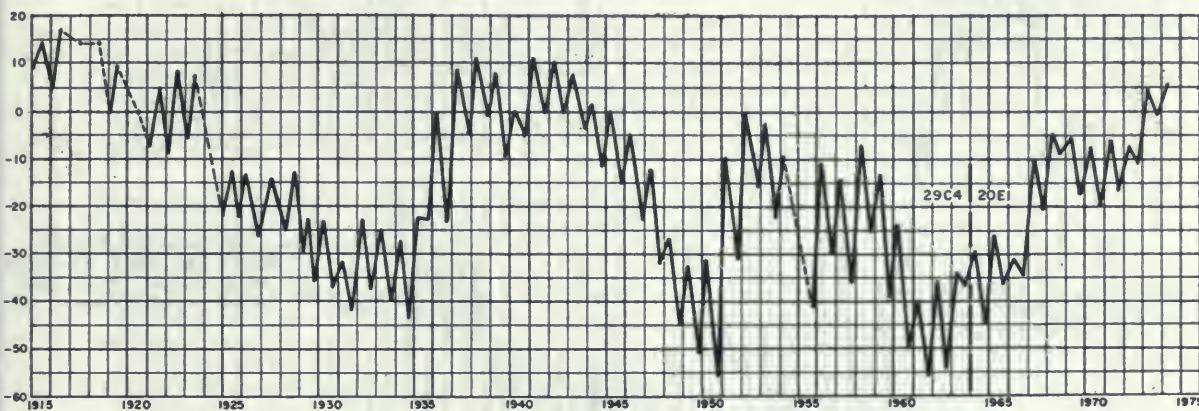
WELL NUMBER 1N/1W-7K1

GROUND SURFACE ELEVATION 83'

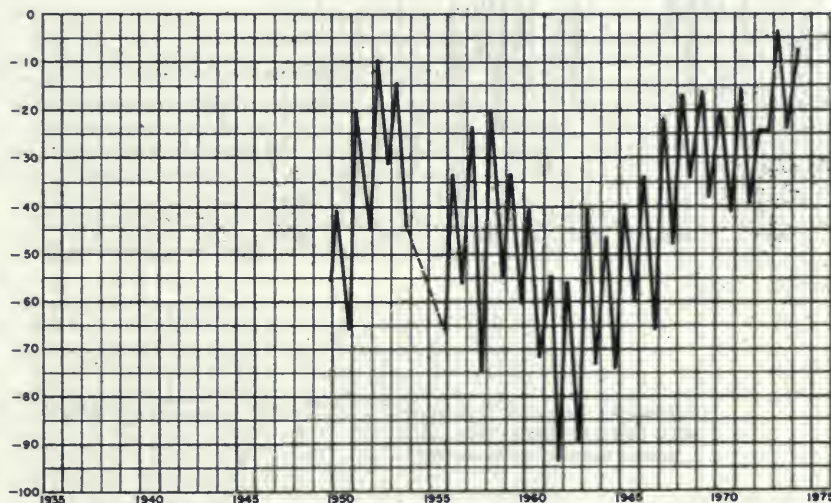
----- CONNECTS MEASUREMENTS MADE AT INTERVALS OF A YEAR OR MORE

## FLUCTUATION OF WATER LEVEL IN WELLS

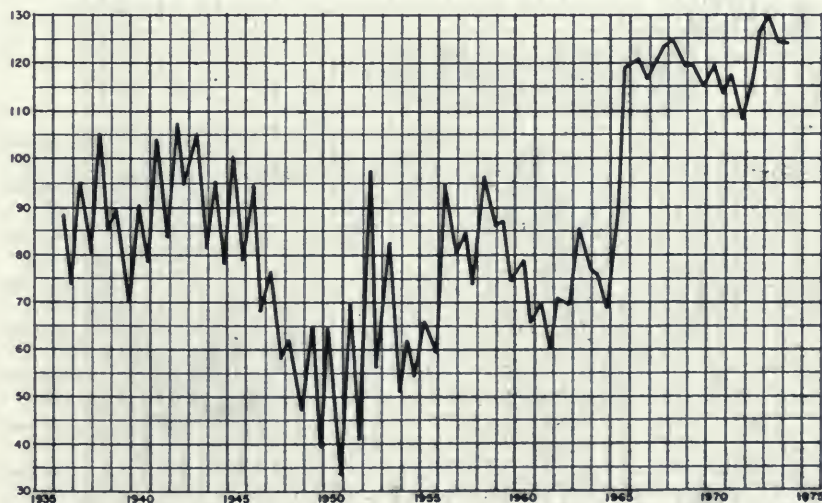
SANTA CLARA VALLEY  
EAST BAY AREA-UPPER AQUIFER (2-09.01)  
WELL NUMBERS 4S/IW-29C4, 20E1  
GROUND SURFACE ELEVATION 55'



ELEVATION IN FEET - U.S.G.S. DATUM



SANTA CLARA VALLEY  
EAST BAY AREA  
LOWER AQUIFER (2-09.01)  
WELL NUMBER 5S/IW-5F1  
GROUND SURFACE ELEVATION 36'

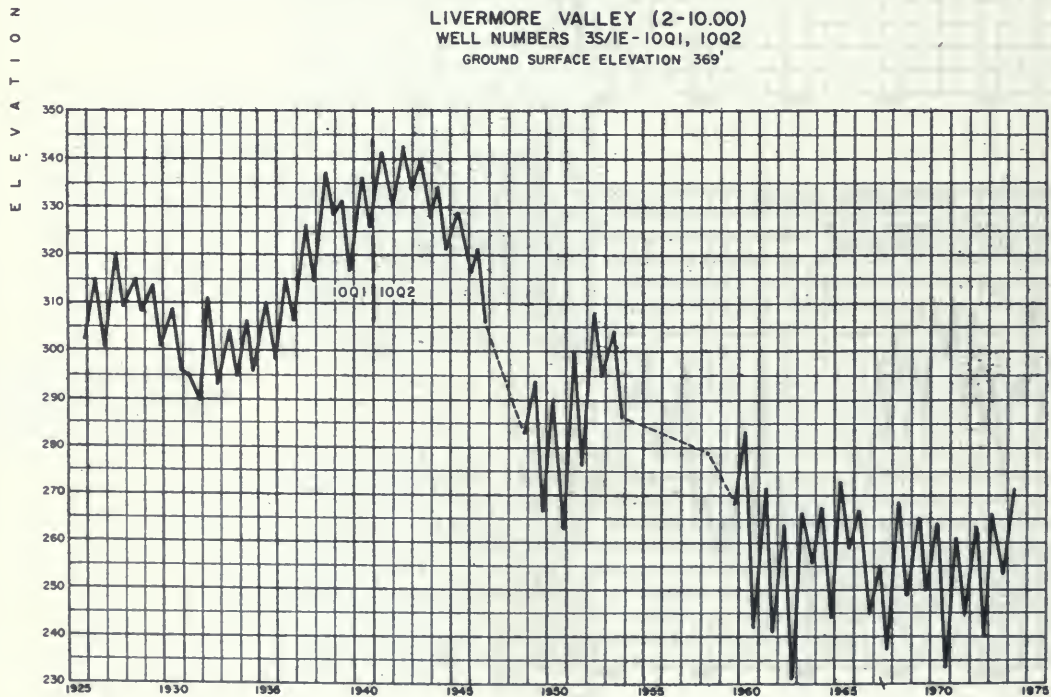
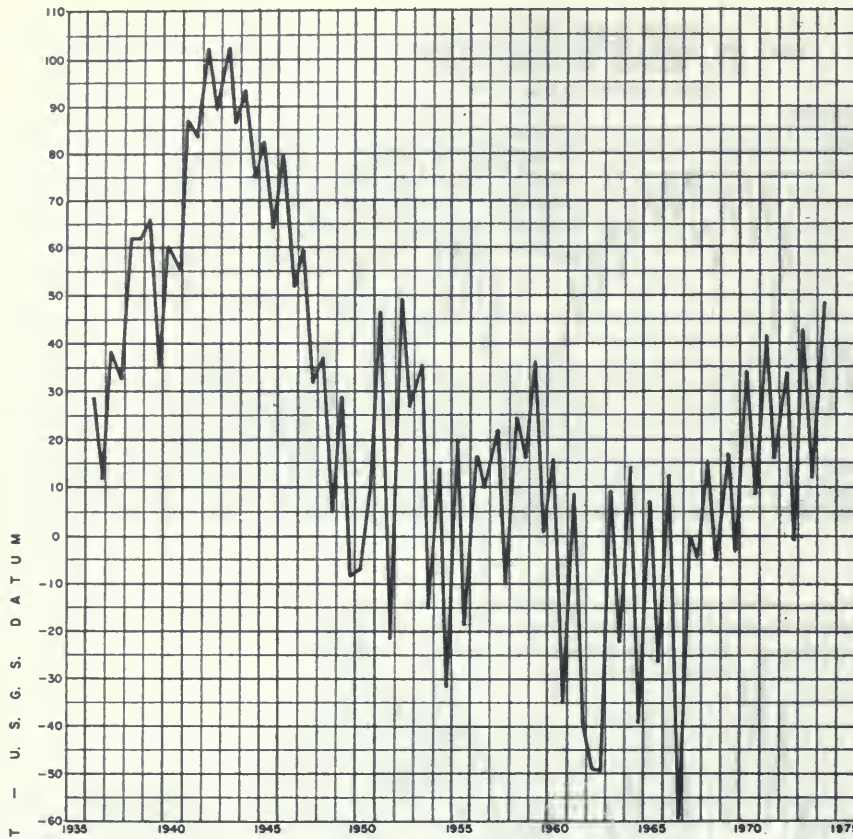


SANTA CLARA VALLEY  
SOUTH BAY AREA (2-09.02)  
WELL NUMBER 6S/IE-23P2  
GROUND SURFACE ELEVATION 240'

----- CONNECTS MEASUREMENTS MADE AT INTERVALS OF A YEAR OR MORE

FLUCTUATION OF WATER LEVEL IN WELLS

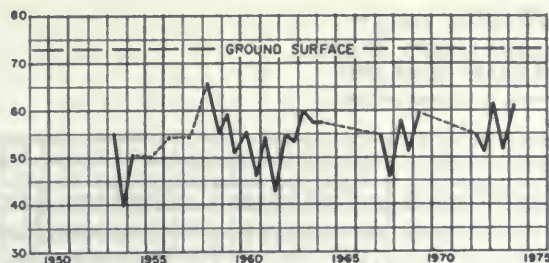




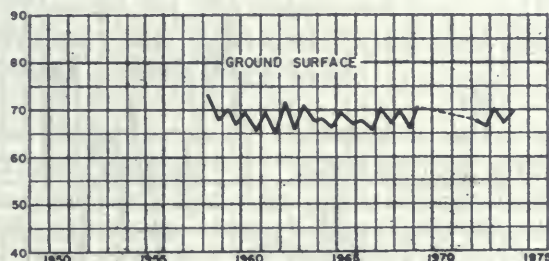
----- CONNECTS MEASUREMENTS MADE AT INTERVALS OF A YEAR OR MORE

# FLUCTUATION OF WATER LEVEL IN WELLS

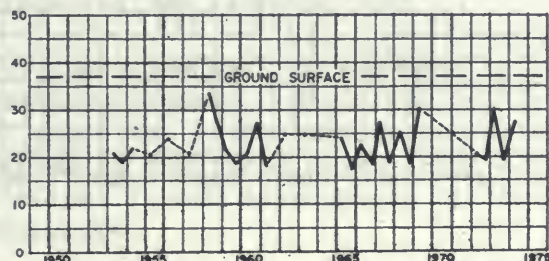
ELEVATION IN FEET - U. S. G. S. DATUM



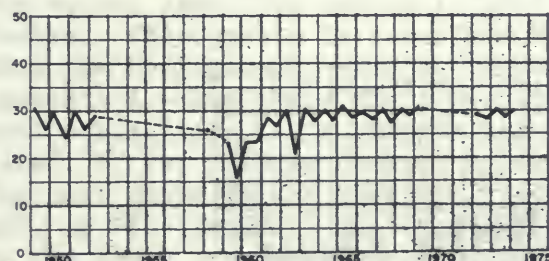
HALF MOON BAY TERRACE (2-22.00)  
WELL NUMBER 5S/5W-201  
GROUND SURFACE ELEVATION 73'



SAN GREGORIO VALLEY (2-24.00)  
WELL NUMBER 7S/5W-14C1  
GROUND SURFACE ELEVATION 80'

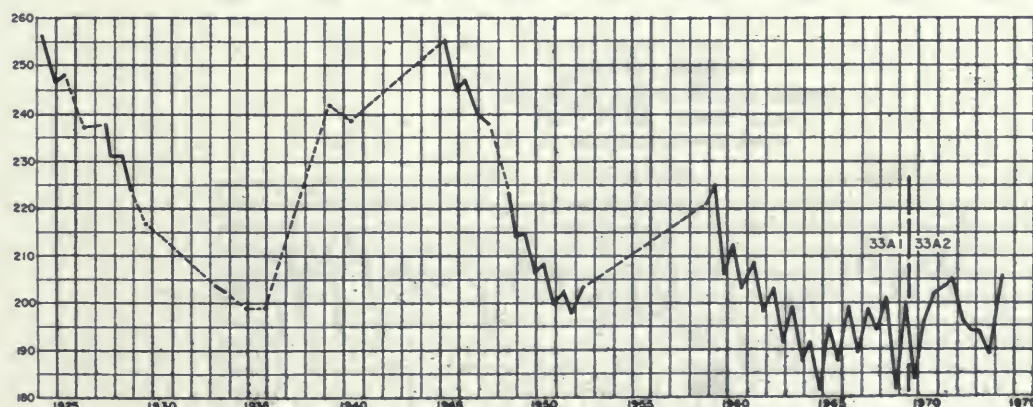


PESCADERO VALLEY (2-26.00)  
WELL NUMBER 8S/5W-10C1  
GROUND SURFACE ELEVATION 37'



SOQUEL VALLEY (3-01.00)  
WELL NUMBER 11S/1W-10C1  
GROUND SURFACE ELEVATION 30'

GILROY - HOLLISTER VALLEY  
SAN BENITO COUNTY (3-03.02)  
WELL NUMBERS 12S/5E-33A1, 33A2  
GROUND SURFACE ELEVATION 280'

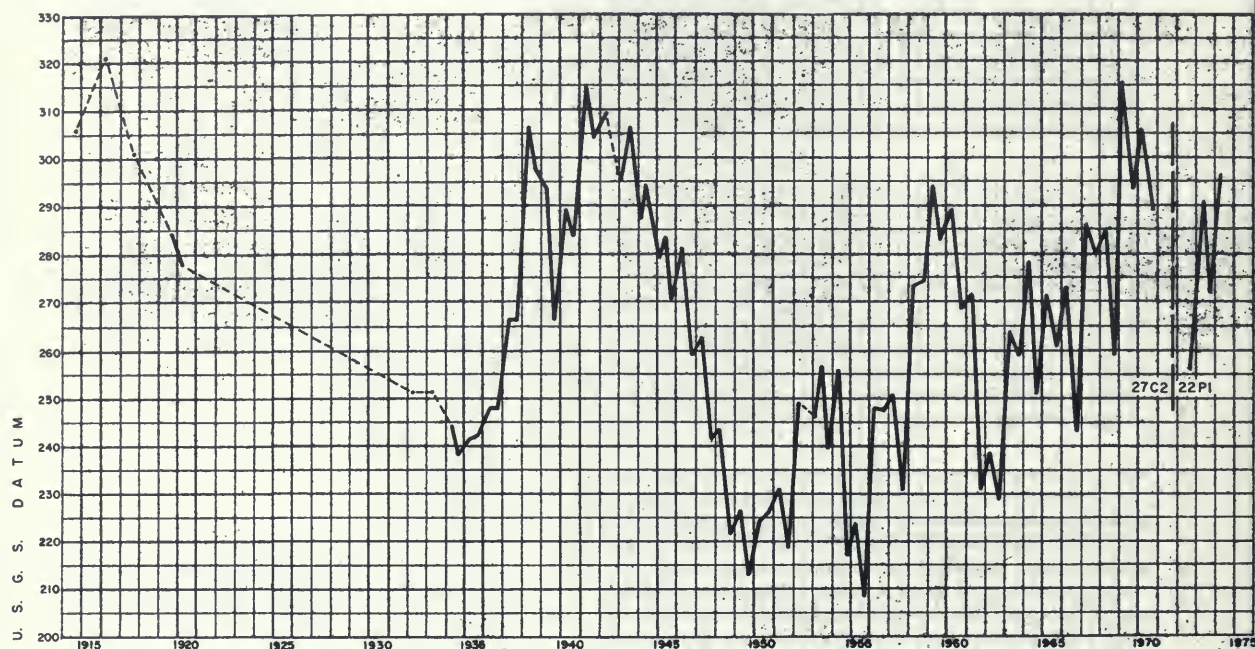


----- CONNECTS MEASUREMENTS MADE AT INTERVALS OF A YEAR OR MORE

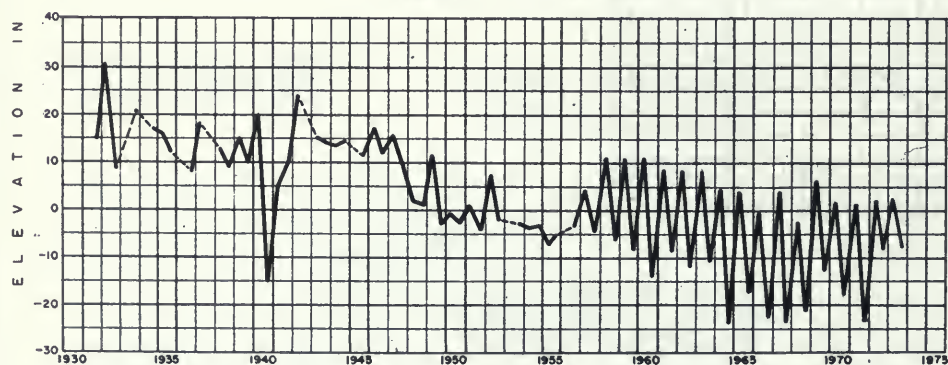
# FLUCTUATION OF WATER LEVEL IN WELLS



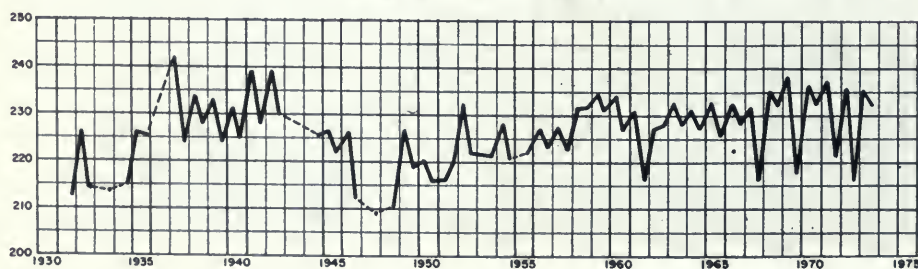
GILROY - HOLLISTER VALLEY  
SOUTH SANTA CLARA COUNTY (3-03.01)  
WELL NUMBER 9S/3E - 27C2, 22P1  
GROUND SURFACE ELEVATION 347, 354'



SALINAS VALLEY  
PRESSURE AREA - 400' AQUIFER (3-04.01)  
WELL NUMBER 14S/3E - 18J1  
GROUND SURFACE ELEVATION 69'



SALINAS VALLEY  
UPPER VALLEY AREA (3-04.05)  
WELL NUMBER 19S/7E - 10P1  
GROUND SURFACE ELEVATION 315'



----- CONNECTS MEASUREMENTS MADE AT INTERVALS OF A YEAR OR MORE

FLUCTUATION OF WATER LEVEL IN WELLS

## Appendix D

### SURFACE WATER QUALITY DATA

This appendix contains surface water quality data collected at stream and estuarine stations in the Central Coastal Area during the period from October 1, 1973, through September 30, 1974. Samples were collected by the Department of Water Resources, U. S. Bureau of Reclamation, Regional Water Quality Control Boards, and Santa Cruz County Health Department.

The Department of Water Resources Laboratory used procedures from the latest edition of "Standard Methods for the Examination of Water and Wastewater" for the determination of mineral, nutrient, and biological constituents. Pesticides are determined in accordance with the "Guide to the Analysis of Pesticide Residues", U. S. Department of Health, Education and Welfare, 1965.

Two numbering systems are used in this bulletin for identifying water quality stations. The first is for those stations for which the flow of water can be measured readily, as in streams and rivers. This system is described in Bulletin No. 157, "Index to Stream Gaging Stations In and Adjacent to California, 1970", Department of Water Resources.

The second numbering system is used for stations located in broad water bodies. This system is described as follows: The first two digits show the hydrographic unit as identified in the introduction to Appendix A. The third digit identifies the type of water body and, for this publication, is a "B" for Bay system; "E" for estuary; "L" for lake; "O" for Pacific Ocean; "R" for reservoir; and "S" for slough. The next digit is the last digit of the latitude in degrees, "3" for 33°, or "9" for 29°. The last three digits are the minutes of latitude to the tenth of a minute. The last four digits are the longitude in the same manner as latitude. A fifth digit indicates a sequence number when two stations have the same 8-digit latitude and longitude numbers.

Example: EO B 802.3 207.1 2

EO	San Francisco Bay
B	Water Body -- Bay
8	38° Latitude
02.3	02.3' Latitude
2	122° Longitude
07.1	07.1' Longitude
2	Second Station



TABLE D-1  
SAMPLING STATION DATA AND INDEX

STATION NAME	STATION NUMBER	LOCATION		RECORD BEGAN	DATA ON PAGES INDICATED						
		LATITUDE ° ' "	LONGITUDE ° ' "		TABLE D-2 D-3 D-4 D-5 D-6 D-7 D-8						FIGURE D-1
ADOBE CREEK AT LAKEVILLE ROAD	E2 5157.01	38-14-04	122-35-48	05/74	53		70	80			39
ALAMEDA CREEK NEAR NILES	E5 1150.00	37-35-14	121-57-35	03/51	55						39
ALISAL CREEK AT OLD STAGE ROAD	D2 1255.50	36-41-30	121-34-06	01/52	44	59	62	73	83		38
APTOS CREEK BELOW VALENCIA CREEK	D0 2020.00	36-58-26	121-54-10	03/70	42		62	73			38
ARROYO SECO NEAR GREENFIELD	D2 1475.00	36-14-12	121-28-48		44						38
ARROYO VALLE NEAR LIVERMORE	E5 1400.00	37-37-24	121-45-28	05/51	55						39
ARROYO VALLE AT N3 HEADQUARTERS	E5 1423.05	37-33-41	121-40-57		55		81				39
BIG RIVER NEAR MENDOCINO	F8 2720.00	39-18-48	123-42-12	01/59	56						40
BIG SULPHUR CREEK NEAR CLOVERDALE	F9 1600.00	38-49-21	122-59-07	07/65	57						40
BLANCO DRAIN AT PUMP LIFT	D2 1030.30	36-39-42	121-37-18	05/70	43						38
BRANCIFORTE CREEK AT SANTA CRUZ	D0 1100.00	36-59-10	122-00-47	03/70	42		62	73			38
CARMEL RIVER AT END OF POPULAR ROAD	D4 1060.50	36-31-36	121-50-54			59					38
CARMEL RIVER AT ROBLES DEL RIO	D4 1200.00	36-38-30	121-43-36	01/52	45						38
CARMEL RIVER AT SAN CARLOS BRIDGE	D4 1052.50	36-32-12	121-52-12			59					38
CHADBOURNE SLOUGH AT CHADBOURNE ROAD	E0 S 811.0 204.8	38-10-57	122-04-50	01/67	51	60	68	78	83		39
CORDELIA SLOUGH AT CYGNUS	E0 S 809.2 205.3	38-09-10	122-05-19	01/67	51		68	78			39
CORDELIA SLOUGH AT UPPER END	E0 S 811.5 207.2	38-11-27	122-07-09	09/67	52		69	78			39
COYOTE CREEK NEAR MADRONE	E6 4250.00	37-10-06	121-38-55	01/52	55						39
CABLAN CREEK AT NATIVIDAD BRIDGE CROSSING	D2 1261.50	36-43-54	121-36-21		44	59	62	73	83		38
GREEN VALLEY CREEK AT CORDELIA	E3 2100.51	38-12-42	122-07-47	12/68	54		71	80			39
GRIZZLY BAY AT DOLPHIN NEAR SUISUN SLOUGH	E0 B 807.0 202.3	38-07-02	122-02-19	01/68	50	60	68	77			39
GUALALA RIVER, SOUTH FORK, NEAR ANNAPOLIS	F8 1100.00	38-42-10	123-25-00	01/59	56						40
HILL SLOUGH AT GRIZZLY ISLAND ROAD	E0 S 813.6 201.2	38-13-34	122-01-14	01/67	52		69	79			39
HONKER BAY NEAR WHEELER POINT	E0 B 804.4 156.2	38-04-26	121-56-12	01/68	49		67	77			39
LAKE MERRITT AT BOATHOUSE DOCK	E4 L 748.1 215.6	37-48-08	122-15-35	03/72	55		80	84			39
LICHAU CREEK AT RAILROAD AVENUE	E2 5261.01	38-18-52	122-39-45	05/74	54		70	80			39
LOS GATOS CREEK NEAR LOS GATOS	E6 5250.00	37-12-30	121-59-15	12/51	55						39
MERRITT LAKE DRAIN AT PUMP	D2 1006.60	36-45-06	121-44-12	08/70	43						38
MONTEZUMA SLOUGH AT GRIZZLY ISLAND ROAD	E0 S 811.2 158.5	38-11-14	121-58-32	02/67	51		69	78			39
NACIMIENTO RIVER NEAR JOLON	D3 3225.50	36-00-50	121-25-10		45						38
NACIMIENTO RIVER NEAR SAN MIGUEL	D3 3520.00	35-47-00	120-47-24		45						38
NAPA RIVER NEAR NAPA	E3 1250.00	38-22-06	122-18-08	11/29	54						39
NAPA RIVER NEAR ST HELENA	E3 1500.00	38-29-40	112-25-50	12/51	54						39
NATIVIDAD CREEK AT EAST LAUREL DRIVE	D2 1264.50	36-41-18	121-37-30		44	59	62	73	83		38
NATIVIDAD DRAINAGE AT OLD STAGE ROAD	D2 1266.50	36-42-00	121-34-24		44	59	62	73			38
NAVARRO RIVER NEAR NAVARRO	F8 2100.00	39-10-15	123-39-55	01/59	56	60		81	84		40
NOYO RIVER NEAR FORT BRAGG	F8 3100.00	39-25-55	123-44-10	01/51	56	60		81			40
PAJARO RIVER AT CHITTENDEN	D1 1250.00	36-54-00	121-34-54	12/51	42						38
PETALUMA RIVER, CUT B, AT SCHULTZ SLOUGH	E2 E 812.3 234.2	38-12-16	122-34-11	05/74	53		70	79			39
PETALUMA RIVER AT D STREET IN PETALUMA	E2 E 814.1 238.1	38-14-04	122-38-05	05/74	53		70	79			39
PETALUMA RIVER AT HIGHWAY 37 AT GREEN POINT	E2 E 806.9 230.3	38-06-22	122-30-19	10/73	52		69	79			39
PETALUMA RIVER AT LAKEVILLE	E2 E 811.9 232.9	38-11-56	122-32-52	05/74	53		70	79			39
PETALUMA RIVER AT MCNEAR AT PETALUMA	E2 E 813.7 236.7	38-13-40	122-36-42	10/73	53		70	79			39
PETALUMA RIVER AT PETALUMA (AT CROWN ROAD)	E2 5200.00	38-15-40	122-39-37	05/74	53		70	80			39
PETALUMA RIVER AT OLD REDWOOD HIGHWAY NORTH	E2 5230.01	38-16-04	122-40-10	11/73	54		70	80			39
PETALUMA RIVER BELOW SAN ANTONIO CREEK	E2 E 809.5 232.5	38-09-28	122-32-32	05/74	52		69	79			39
PETALUMA RIVER AT WEST PAYRAN STREET AT PETALUMA	E2 E 814.7 238.3	38-14-42	122-38-15	10/73	53		70	80			39
QUINADO CANYON CREEK AT JOLON ROAD	D2 1641.50	36-09-18	121-07-42		44						38
RUSSIAN RIVER NEAR CLOVERDALE	F9 1680.00	38-52-16	123-03-09	05/74	57						40
RUSSIAN RIVER, EAST FORK, NEAR CALPELLA	F9 4200.00	39-14-40	123-07-57	04/51	57						40
RUSSIAN RIVER, EF, AT POTTER VALLEY POWERHOUSE	F9 4900.00	39-21-42	123-07-38	05/51	57						40
RUSSIAN RIVER NEAR GUERNEVILLE	F9 1100.00	38-30-00	122-56-05	11/69	55				86		40
RUSSIAN RIVER NEAR HEALDSBURG	F9 1500.00	38-36-48	122-50-08	05/51	57						40
RUSSIAN RIVER NEAR HOPLAND	F9 1765.00	39-01-35	123-07-45	04/51	57						40
SACRAMENTO RIVER AT CHIPPS ISLAND	E0 B 802.8 155.0	38-02-47	121-55-02	01/68	47	59	65	75	83		39
SALINAS RECLAMATION CANAL AT ALISAL S.T.P.	D2 1016.50	36-40-06	121-38-06	05/69	43						38
SALINAS RECLAMATION CANAL AT PRESTON STREET	D2 1011.50	36-41-06	121-39-12		43	59	62	73	83		38
SALINAS RIVER 1.9 MILES ABOVE HIGHWAY 1 BRIDGE	D2 1110.70	36-43-06	121-45-00	11/71	43	59	62	73			38
SALINAS RIVER AT BLANCO DRAIN	D2 1120.50	36-42-24	121-44-48	11/71	43	59	62	73			38
SALINAS RIVER AT BLANCO ROAD	D2 1150.30	36-40-42	121-44-42	05/70	43	59	62	73			38
SALINAS RIVER NEAR BRADLEY	D2 1850.00	35-55-42	120-52-00	07/58	44						38
SALINAS RIVER AT DAVIS ROAD	D2 1160.20	36-38-30	121-42-00	11/71	43	59	62	73			38
SALINAS RIVER NEAR GONZALES	D2 1325.10	36-29-12	121-28-06	05/69	44						38
SALINAS RIVER AT PASO ROBLES	D3 1450.00	35-37-42	120-41-06		44						38
SALINAS RIVER ABOVE PILITAS CREEK NR SANTA MARGARITA	D3 1675.00	35-21-00	120-30-42		44						38
SALINAS RIVER NEAR POZO	D3 1800.00	35-18-18	120-24-18		44						38
SALINAS RIVER NEAR SPRECKELS	D2 1220.00	36-37-48	121-40-42		43						38
SALINAS RIVER AT TWIN BRIDGES	D2 1110.50	36-44-00	121-46-42	05/71	43	59	62	73			38
SAN ANTONIO CREEK ABOVE HIGHWAY 101	E2 5145.01	38-10-57	122-37-28	05/74	53		70	80			39
SAN ANTONIO CREEK NEAR MOUTH	E2 E 809.5 233.0	38-09-28	122-33-02	10/73	52		69	79			39
SAN ANTONIO RIVER NEAR JOLON	D3 2300.00	35-57-30	121-11-24		45						38
SAN ANTONIO RIVER NEAR LOCKWOOD	D3 2215.00	35-53-48	121-05-12		44						38
SAN ANTONIO RIVER AT PLEYTO	D3 2210.00	35-51-12	120-58-42		44						38
SAN BENITO RIVER NEAR WILLOW CREEK SCHOOL	D1 2450.00	36-36-30	121-12-00	07/58	43						38
SAN FRANCISCO BAY AT SAN MATEO BRIDGE (PIER 662)	E0 B 736.2 212.0	37-36-10	122-12-00	06/71	45		63	74	83	88	39

TABLE D-1 (Continued)  
SAMPLING STATION DATA AND INDEX

STATION NAME	STATION NUMBER	LOCATION		RECORD BEGAN	DATA ON PAGES INDICATED						
		LATITUDE	LONGITUDE		TABLE						FIGURE D-1
		° ' "	° ' "		D-2	D-3	D-4	D-5	D-6	D-7	D-8
SAN FRANCISCO BAY AT SAN MATEO BRIDGE (SHIP CHANNEL)	E0 B 735.0 215.0	37-35-01	122-14-59	09/69	45					88	39
SAN FRANCISCO BAY AT TREASURE ISLAND	E0 B 749.2 222.4	37-49-15	122-22-26	07/65	46	63	74	83		88	39
SAN LORENZO RIVER AT BOULDER CREEK	D0 1498.01	37-06-47	122-06-40	03/70	42	62	73				38
SAN LORENZO RIVER AT PARADISE PARK	D0 1180.01	37-00-37	122-02-34	09/69	42	62	73		85		38
SAN PABLO BAY NEAR MOUTH OF PETALUMA RIVER	E0 B 805.3 226.3	38-05-20	122-26-20	03/71	50	68	77				39
SAN PABLO BAY NEAR PINOLE POINT	E0 B 801.8 222.3	38-01-50	122-22-15	03/71	46	64	75				39
SAN PABLO BAY NEAR RODEO	E0 B 803.5 217.0	38-03-30	122-17-00	03/71	48	59	65	76	83		39
SCOTT CREEK AT HIGHWAY 1	D0 4010.01	37-02-26	122-13-39	03/70	42	62	73				38
SONOMA CREEK AT AGUA CALIENTE	E2 6200.00	38-19-24	122-29-36		54	71	80				39
SONOMA CREEK AT CAMP SIX	E2 E 810.6 224.9	38-10-07	122-24-55	05/74	53	70	79				39
SONOMA CREEK AT HIGHWAY 12 BRIDGE	E2 6635.01	38-25-39	122-33-30	05/74	54	71	80				39
SONOMA CREEK AT HIGHWAY 37 (SEARS POINT ROAD)	E3 E 809.4 224.3	38-09-21	122-24-17	05/74	54	71	80				39
SONOMA CREEK AT HIGHWAY 121	E2 6075.01	38-14-26	122-26-59	05/74	54	71	80				39
SONOMA CREEK AT LEVERONI ROAD	E2 6175.01	38-16-35	122-28-11	05/74	54	71	80				39
SONOMA CREEK AT MCGILL	E2 E 811.8 226.1	38-11-47	122-26-06	05/74	53	70	79				39
SOQUEL CREEK AT SOQUEL	D0 3100.00	36-59-29	121-57-17	12/51	42	62	73				38
SUISUN BAY OFF BULLS HEAD POINT	E0 B 802.3 207.1	38-02-20	122-07-06	02/68		64					39
SUISUN BAY OFF BULLS HEAD POINT NEAR MARTINEZ	E0 B 802.7 207.0	38-02-40	122-07-00	10/72	46	59	64	75	83		39
SUISUN BAY OFF MIDDLE POINT	E0 B 803.6 159.3	38-03-36	121-59-20	01/68	48	66	76				39
SUISUN BAY NEAR FORT CHICAGO	E0 B 803.5 201.4	38-03-30	122-01-25	08/46	48						39
SUISUN BAY NEAR PRESTON POINT	E0 B 804.0 203.0	38-03-58	122-03-00	09/68	49	60	66	76	83		39
SUISUN SLOUGH AT VOLANTI SLOUGH ON JOICE ISLAND	E0 S 810.8 202.8	38-10-50	122-02-45	01/67	51	60	68	78	83		39
SWEETWATER CREEK BELOW MINE ROAD	E5 1438.21	37-24-06	121-29-18	10/73	55						39
UVAS CREEK NEAR MORGAN HILL	D1 1380.00	37-04-00	121-41-30		43						38
UVAS CREEK ABOVE UVAS RESERVOIR	D1 1390.00	37-05-36	121-43-00		43						38
UVAS CREEK AT UVAS ROAD	D1 1371.50	37-03-36	121-40-18	07/52	43						38
WILLOW BROOK AT ADOBE ROAD	E2 5235.01	38-18-52	122-39-45	05/74	54	70	80				39
WILLOW BROOK AT STONY POINT ROAD	E2 5220.01	38-16-28	122-40-33	05/74	53	70	80				39
ZAYANTE CREEK AT FELTON	D0 1220.01	37-02-53	122-04-00	03/70	42	62	73				38

HYDROGRAPHIC AREA DESIGNATIONS IN THE CENTRAL COASTAL AREA

Central Coastal Area

D0 Santa Cruz  
D1 Pajaro-San Benito Rivers  
D2 Lower Salinas River  
D3 Upper Salinas River  
D4 Monterey Coast

San Francisco Bay Area

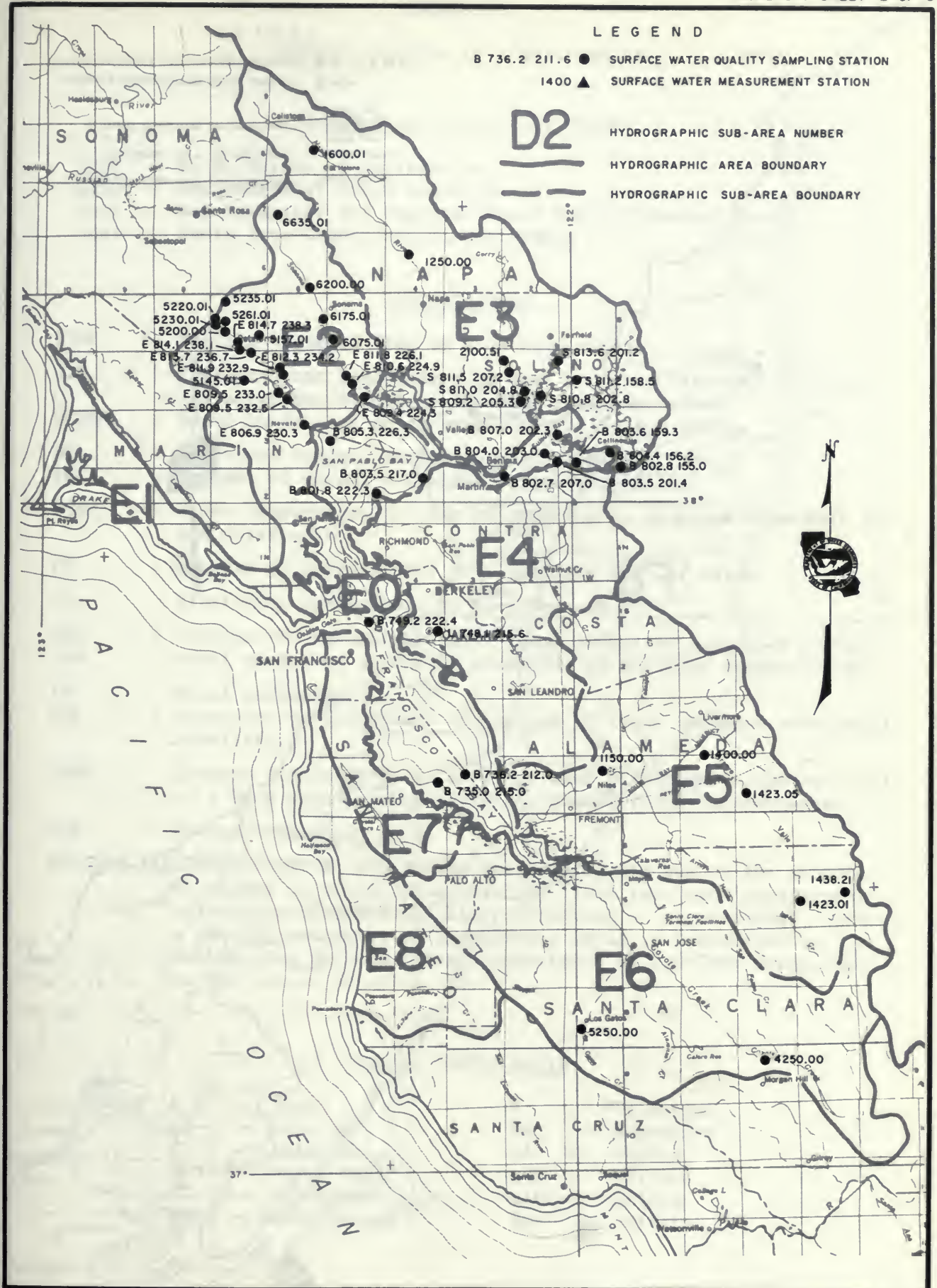
E0 San Francisco Bay  
E1 Coast-Marin  
E2 Marin-Sonoma  
E3 Napa-Solano  
E4 East Bay  
E5 Alameda Creek  
E6 Santa Clara Valley  
E7 Bayside-San Mateo  
E8 Coast-San Mateo

North Coastal Area

F8 Mendocino Coast  
F9 Russian River

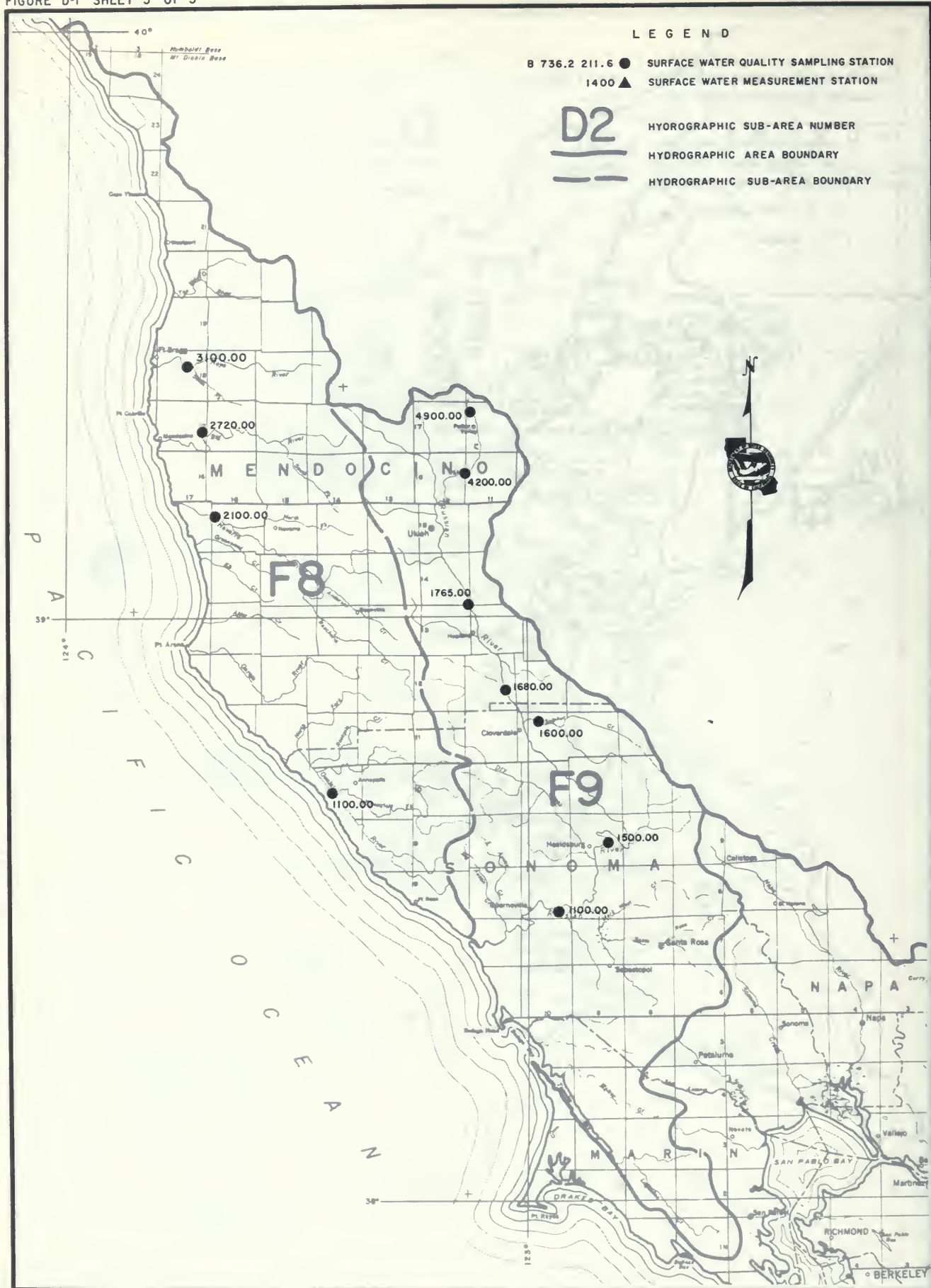






SURFACE WATER OBSERVATION STATIONS 1973-74





SURFACE WATER OBSERVATION STATIONS 1973-74

## MINERAL ANALYSES OF SURFACE WATER

Sampler and Lab Agency Codes

5001 - U. S. Bureau of Reclamation  
 5050 - Department of Water Resources  
 5052 - San Francisco Bay Regional Water Quality Control Board  
 5063 - Santa Cruz County Health Department

Abbreviations

TIME - Pacific Standard Time on a 24-hour clock  
 G.H. - Instantaneous gage height in feet above an established datum  
 Q - Instantaneous discharge in cubic feet per second  
 DEPTH - Depth in feet at which sample was collected  
 DO - Dissolved oxygen content in milligrams per liter  
 SAT - Percent of normal dissolved oxygen saturation  
 TEMP - Water temperature at time of sampling in degrees Fahrenheit (F) and Celsius (C)  
 PH - Measure of acidity (<7) or alkalinity (>7) of water  
 EC - Electrical conductance in micromhos at 25°C  
 TDS - Gravimetric determination of total dissolved solids at 180°C  
 SUM - Total dissolved solids by summation of analyzed constituents  
 TH - Total hardness  
 NCH - Noncarbonate hardness - any excess of total hardness over total alkalinity  
 TURB - Jackson Turbidity Units measured with a Hellige Turbidimeter (E) or a Hack Nephelometer (A) with (F) for field determination.  
 SAR - Sodium adsorption ratio  
 PERCENT REACTANCE VALUE is determined by dividing the sum of the cations or anions in milliequivalents per liter into each constituent in milliequivalents per liter, arriving at a percentage. For a partial analysis, an approximate value is determined by multiplying the electrical conductance by 0.01 and using that as the cation or anion sum.

Mineral Constituents

B	-	Boron	K	-	Potassium
CA	-	Calcium	MG	-	Magnesium
CL	-	Chloride	NA	-	Sodium
CO3	-	Carbonate	NO3	-	Nitrate
F	-	Fluoride	SI02	-	Silica
HCO3	-	Bicarbonate	SO4	-	Sulfate



TABLE D-2 (CONTINUED)  
MINERAL ANALYSES OF SURFACE WATER

DATE TIME	SAMPLER LAB	G.M. Q DEPTH	DO SAT	TEMP	FIELD LABORATORY PH EC	MINERAL CONSTITUENTS IN MILLIGRAMS PER LITER										MILLIGRAMS PER LITER PERCENT REACTANCE VALUE					MILLIGRAMS PER LITER				
						CA	MG	NA	K	CO3	HCO3	SO4	CL	NO3	B	F	TDS SUM	TH NCH	TURB SAR						
Do 1100.00 BRANCIFORTE CREEK AT SANTA CRUZ																									
04/10/74 1500	5050 5050		10.0 93	54 12	F 7.3 C 7.3	259 265	22 1.10 44	7.8 .64 26	17 .74 30	-- 0 0.00	0 1.08 65	-- 19 32	3.4 .05 3	-- 54 3	-- 0.05 3	-- -- --	-- -- --	-- -- --	172	87 33	12A 0.8				
09/19/74 1530	5050 5050		9.0 92	62 17	F 7.2 C 7.9	300 370	31 1.55 44	8.9 .73 21	28 1.22 35	-- 0 0.00	0 113 1.85	-- 30 85	-- -- --	-- -- --	-- -- --	-- -- --	-- -- --	-- -- --	227	114 22	1A 1.1				
Do 1180.01 SAN LORENZO RIVER AT PARADISE PARK																									
11/29/73 1100	5063		11.0 97	50 10	F 7.8 C	220	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--				
12/18/73 1450	5063		12.5 111	50 10	F 7.5 C	345	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--				
01/24/74	5063		11.0 97	50 10	F 7.6 C	265	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--				
04/10/74 1420	5050 5050		10.5 98	54 12	F 7.5 C 7.7	295 293	32 1.60 55	8.3 .68 23	15 .85 22	-- 0 0.00	0 105 1.72 42	-- 13 .37 18	.4 .01	-- --	-- --	-- --	-- --	-- --	175	114 28	6A 0.6				
05/02/74 1415	5063		10.5 105	60 16	F 7.5 C	320	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--				
05/23/74 1400	5063		10.5 105	60 16	F 7.6 C	300	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--				
09/19/74 1430	5050 5050		13.0 138	65 18	F 7.8 C 8.2	360 358	38 1.90 53	9.3 .76 21	21 .91 25	-- 0 0.00	0 134 2.20	-- 22 .62	-- --	-- --	-- --	-- --	-- --	-- --	204	133 23	0A 0.8				
Do 1220.01 ZAYANTE CREEK AT FELTON																									
04/10/74 1330	5050 5050		11.0 100	52 11	F 7.4 C 7.6	380 378	41 2.05 54	11 .93 24	19 .83 22	-- 0 0.00	0 121 1.98 84	-- 13 .37 16	1.0 .02 1	-- --	-- --	-- --	-- --	-- --	229	149 50	8A 0.7				
09/19/74 1315	5050 5050		11.5 118	62 17	F 7.6 C 8.0	390 404	43 2.15 54	8.7 .72 18	25 1.09 28	-- 0 0.00	0 133 2.18	-- 24 .68	-- --	-- --	-- --	-- --	-- --	-- --	241	143 35	0A 0.9				
Do 1498.01 SAN LORENZO RIVER AT BOULDER CREEK																									
04/10/74 1230	5050 5050		11.5 103	50 10	F 7.5 C 7.6	308 315	35 1.75 56	8.2 .67 21	16 .70 22	-- 0 0.00	0 105 1.72 83	-- 12 .34 17	.1 .00	-- --	-- --	-- --	-- --	-- --	189	121 35	4A 0.6				
09/19/74 1200	5050 5050		11.5 133	72 22	F 7.6 C 8.0	410 474	49 2.45 50	13 1.11 23	30 1.31 27	-- 0 0.00	0 174 2.85	-- 30 .85	-- --	-- --	-- --	-- --	-- --	-- --	266	178 36	0A 1.0				
Do 2020.00 APTOS CREEK BELOW VALENCIA CREEK																									
04/10/74 1610	5050 5050		10.5 95	52 11	F 7.8 C 7.9	405 420	38 1.90 45	16 1.38 33	22 .96 23	-- 0 0.00	0 150 2.46 83	-- 17 .48 16	.4 .01	-- --	-- --	-- --	-- --	-- --	256	164 41	15A 0.7				
09/19/74 1635	5050 5050		4.0 40	60 16	F 7.6 C 8.3	660 707	58 2.89 37	30 2.54 33	54 2.35 30	-- 0 0.00	0 272 4.46	-- 44 1.24	-- --	-- --	-- --	-- --	-- --	-- --	406	272 49	2A 1.4				
Do 3100.00 SOQUEL CREEK AT SOQUEL																									
04/10/74 1540	5050 5050		3.48 102	10.5 109	56 13	F 7.6 C 7.8	480 504	54 2.69 52	17 1.40 27	24 1.04 20	-- 0 0.00	0 166 2.72 44	-- 18 .51 16	.3 .00	-- --	-- --	-- --	-- --	296	205 69	3A 0.7				
09/19/74 1605	5050 5050		2.40 4.6	11.0 118	66 19	F 8.0 C 8.2	750 762	71 3.54 45	27 2.23 29	47 2.04 26	-- 0 0.00	0 242 3.97	-- 64 1.80	-- --	-- --	-- --	-- --	-- --	453	289 90	0A 1.2				
Do 4010.01 SCOTT CREEK AT HIGHWAY 1																									
04/10/74 1030	5150 5050		10.5 94	51 11	F 7.0 C 7.1	295 253	14 .70 31	6.1 .50 22	25 1.09 48	-- 0 0.00	0 64 1.05 55	-- 30 .85 45	.8 .01 1	-- --	-- --	-- --	-- --	-- --	147	60 8	10A 1.4				
09/19/74 1035	5050 5050		7.0 75	66 19	F 7.2 C 7.5	395 431	23 1.15 29	11 .93 24	43 1.87 47	-- 0 0.00	0 95 1.56	-- 59 1.66	-- --	-- --	-- --	-- --	-- --	-- --	239	104 26	0A 1.8				
Do 1250.00 PAJARO RIVER AT CHITTENDEN																									
03/12/74 0930	5050 5050		4.52 100	10.2 14	58 14	F 7.6 C 7.9	440 402	42 2.10 34	28 2.34 38	39 1.70 28	-- 0 0.00	0 212 3.47 77	-- 32 .90 20	9.7 .16 4	.20	--	--	--	366	222 49	1.1				
07/10/74 1300	5050 5050		1.13 121	10.4 23	73 23	F 8.4 C 8.5	1500 1550	67 3.34 20	71 5.91 35	173 7.53 45	-- 11 .37 2	426 6.98 41	267 5.56 33	130 3.84 23	11.0 .18 1	.90	--	--	976	463 95	3.5				
09/19/74	5050 5050		7.6 85	60.8F 21.0C	8.1 8.1	1200 1450	74 3.69 24	61 5.02 32	155 6.74 44	-- 0 0.00	0 526 8.62 56	139 2.89 19	137 3.86 25	9.0 .15 1	.70	--	--	--	844	436 5	3.2				

TABLE D-2 (CONTINUED)  
MINERAL ANALYSES OF SURFACE WATER

DATE TIME	SAMPLE LAB	G.M. Q DEPTH	DO SAT	TEMP	FIELD LABORATORY		MINERAL CONSTITUENTS IN MILLIEQUIVALENTS PER LITER										MILLIGRAMS PER LITER				
					PH	EC	CA	MG	NA	K	CO3	HCO3	SO4	CL	VALUE	NO3	B	F	TDS SUM	TH NCH	TURB SAF
D1 1371.50 UVAS CREEK AT UVAS ROAD																					
03/12/74	5050		11.1	54	F	7.6	165	20	12	6.9	--	0	112	--	4.7	1.0	.00	--	138	100	
1100	5050		105	12	C	7.9	223	1.00	1.00	.30	.00	1.84	.13	.02			--		8	0.3	
								43	43	13			92		7	1					
07/10/74	5050		11.4	50	F	7.9	230	28	14	9.2	--	0	140	18	6.6	.3	.10	--	172	129	
1420	5050		114	15	C	7.9	284	1.40	1.18	.40	.00	2.29	.37	.19	.00		--		145	15	
								47	40	13			80	13	7					0.4	
09/19/74	5050		8.8	70.7F	7.5	310	34	15	10	--	0	173	21	5.8	.5	.10	--	164	150		
	5050		100	21.5C	7.8	339	1.70	1.30	.44	.00	2.84	.44	.16	.01		--		172	8		
							49	38	13			82	13	5						0.4	
D1 1380.00 UVAS CREEK NEAR MORGAN HILL																					
09/19/74	5050		8.8	70.7F	7.5	310	34	15	10	--	0	173	21	5.8	.5	.10	--	164	150		
	5050		99	21.5C	7.8	339	1.70	1.30	.44	.00	2.84	.44	.16	.01		--		172	8		
							49	38	13			82	13	5						0.4	
D1 1390.00 UVAS CREEK ABOVE UVAS RESERVOIR																					
09/19/74	5050		9.6		7.9	301	41	15	14	--	0	189	27	5.3	.5	.20	--	188	164		
	5050	2.0			7.8	367	2.05	1.23	.61	.00	3.10	.56	.15	.01		--		196	9		
							53	.32	.16			81	15	4						0.5	
D1 2450.00 SAN BENITO RIVER NEAR WILLOW CREEK SCHOOL																					
03/12/74	5050		11.0	63	F	8.4	1200	40	94	142	--	9.0	526	--	67	.5	1.00	--	908	408	
1215	5050		117	17	C	8.4	1420	2.00	7.76	6.18	.30	8.62		1.89	.01		--		42	2.0	
								13	49	39											
07/11/74	5050		9.9	63	F	8.4	850	19	98	56	--	16	473	122	28	.4	.70	--	568	452	
0740	5050		105	17	C	8.6	1000	.95	8.08	2.44	.53	7.75	2.54	.79	.01		--		573	38	
								8	70	21		5	67	22	7					1.1	
09/20/74	5050	3.57	9.2	58.1F	8.3	1180	26	115	125	--	16	526	274	62	.2	1.40	--	895	542		
	5050		93	14.5C	8.5	1410	1.30	9.53	5.44	.53	8.62	5.70	1.75	.00		--		879	84		
							8	59	.33		3	52	34	11						2.3	
D2 1006.60 MEHRITT LAKE DRAIN AT PUMP																					
03/12/74	5050		7.3	55	F	6.8	1000	90	57	112	--	0	238	--	125	15.0	.30	--	918	463	
0845	5050		69	13	C	7.4	1330	4.49	4.76	4.87	.00	3.90		3.53	.24		--		268	2.3	
								32	34	34			51		46	3					
D2 1011.50 SALINAS RECLAMATION CANAL AT PRESTON STREET																					
05/07/74	5050					808	68	20	61	--	0	248	--	78	--	--	--		253		
1120	5050						44	1.64	2.65	.00	4.06		2.20	--	--	--	--	49	1.7		
D2 1016.50 SALINAS RECLAMATION CANAL AT ALISAL STP																					
03/12/74	5050		4.4	63	F	7.4	1350	109	52	133	--	0	330	--	171	62.0	.20	--	990	490	
0715	5150		46	17	C	7.1	1540	5.44	4.35	5.79	.00	5.41		4.82	1.00		--		219	2.6	
								35	28	37			48		43	9					
D2 1030.30 BLANCO DRAIN AT PUMP LIFT																					
03/12/74	5050		11.1	55	F	8.4	2600	84	120	568	--	16	623	--	421	150	1.00	--	2460	705	
0815	5050		105	13	C	8.4	3570	4.19	9.89	24.71	.53	10.21		11.87	2.42		--		167	9.3	
								11	.25	.64											
D2 1117.50 SALINAS RIVER AT TWIN BRIDGES																					
10/31/73	5050		9.8	50.5F	7.8	690	--	--	--	--	--	--	--	--	--	--	--	478		5A	
0815	5050		97	15.3C													--				
D2 1110.70 SALINAS RIVER 1.9 MILES ABOVE HIGHWAY 1 BRIDGE																					
10/31/73	5050		9.0	58.5F	7.6	650	--	--	--	--	--	--	--	--	--	--	--	473		3A	
0800	5050		88	14.7C													--				
D2 1120.50 SALINAS RIVER AT BLANCO DRAIN																					
10/31/73	5050		2.5	57.0F	7.3		--	--	--	--	--	--	--	--	--	--	--	487		4A	
0800	5050		24	13.9C													--				
D2 1150.30 SALINAS RIVER AT BLANCO ROAD																					
10/31/73	5050		4.4	57.0F	7.4	650	--	--	--	--	--	--	--	--	--	--	--	439		4A	
0815	5050		54	13.9C													--				
D2 1160.20 SALINAS RIVER AT DAVIS ROAD																					
10/31/73	5050		9.0	58.0F	7.7	500	--	--	--	--	--	--	--	--	--	--	--	361		5A	
0830	5050		88	14.4C													--				
D2 1220.00 SALINAS RIVER NEAR SPRECKELS																					
03/11/74	5050		11.2	57	F	8.1	350	24	28	29	--	0	157	--	20	1.5	.10	--	280	178	
1415	5050		102	11	C	7.9	480	1.20	2.36	1.26	.00	2.57		.56	.02		--		50	0.9	
								25	49	26			82		18	1					
09/19/74	5050		11.6	72.5F	8.2	368	30	15	19	--	0	143	53	15	3.1	.10	--	227	155		
	5050		133	22.5C	7.9	396	1.80	1.30	.83	.00	2.34	1.10	.42	.05		--		212	38		
							40	33	.21			60	28	11	1					0.7	



TABLE D-2 (CONTINUED)  
MINERAL ANALYSES OF SURFACE WATER

DATE TIME	SAMPLER LAB	G.H. DEPTH	DO SAT	TEMP	FIELD LABORATORY		MINERAL CONSTITUENTS IN										MILLIGRAMS PER LITER MILLIEQUIVALENTS PER LITER					MILLIGRAMS PER LITER				
					PH	EC	CA	MG	NA	K	CO3	HCO3	SO4	CL	NO3	VALU	PERCENT REACTANCE	VALU	NO3	B	F	TDS SUM	TH NCH	TURB SAR		
D2 1255.50 ALISAL CREEK AT OLD STAGE ROAD																										
05/07/74	5050						50	14	30	--	0	199	--	39	--	--	--				182					
1040	5050				R.0	500	2.50	1.15	1.31	.00	3.26		1.10						20				1.0			
D2 1261.50 GABILAN CREEK AT NATIVIDAD BRIDGE CROSSING																										
05/07/74	5050						70	14	25	--	0	261	--	28	--	--	--				231					
1010	5050				R.1	548	3.49	1.15	1.09	.00	4.28		.79						18				0.7			
D2 1264.50 NATIVIDAD CREEK AT EAST LAUREL DRIVE																										
05/07/74	5050						66	27	65	--	0	312	--	95	--	--	--				275					
1115	5050				R.3	828	3.29	2.22	2.83	.00	5.11		2.68						20				1.7			
D2 1266.50 NATIVIDAD DRAINAGE AT OLD STAGE ROAD																										
05/07/74	5050						51	16	12	--	0	200	--	41	--	--	--				192					
1035	5050				7.7	525	2.54	1.32	1.39	.00	3.28		1.16						29				1.0			
D2 1325.10 SALINAS RIVER NEAR GONZALES																										
03/11/74	5050		11.2	55	F R.0	320	23	32	27	--	0	165	--	21	2.6	.10	--	302	189							
1300	5050		10.6	13	C R.1	497	1.15	2.63	1.17	.00	2.70		.59	.04		--		54				0.9				
07/10/74	5050		10.8	63	F R.4	600	61	24	46	--	0	184	134	34	4.4	.20	--	448	254							
0815	5050		11.2	17	C 7.9	700	3.04	2.03	2.00	.00	3.62	2.79	.96	.07		--		395	103				1.3			
09/19/74	5050		4.9		R.2	311	33	14	16	--	0	136	48	10	.6	.10	--	194	140							
	5050				7.9	349	1.65	1.15	.70	.00	2.73	1.00	.28	.01		--		189	29				0.6			
D2 1475.00 ARROYO SECO NEAR GREENFIELD																										
07/09/74	5050		9.5	72	F R.4	310	44	10	13	--	0	149	42	6.6	.0	.00	--	234	152							
1320	5050		11.0	22	C R.3	358	2.20	.84	.57	.00	2.44	.87	.19	.00		--		189	30				0.5			
09/19/74	5050		9.8	67.1F	R.2	340	46	11	16	--	0	168	52	4.9	.1	.00	--	222	163							
	5050		10.9	19.5C	R.2	390	2.30	.96	.70	.00	2.75	1.08	.14	.00		--		213	26				0.5			
D2 1641.50 QUINADO CANYON CREEK AT JOLON ROAD																										
05/02/74	5050						--	--	--	--	--	--	--	451	--	1.40	--									
1120	5050				3960									12.72												
D2 1850.00 SALINAS RIVER NEAR BRADLEY																										
03/11/74	5050		6.78	11.2	54 F R.0	420	50	24	28	--	0	213	--	25	2.0	.10	--	356	226							
1130	5050		10.6	12	C R.2	561	2.50	2.02	1.22	.00	3.49		.71	.03		--		52				0.8				
07/09/74	5050		6.43	10.5	66 F R.3	235	28	11	12	--	0	115	32	8.0	.6	.10	--	196	119							
1130	5050		11.4	10	C R.0	283	1.40	.98	.52	.00	1.88	.67	.23	.01		--		149	25				0.5			
09/19/74	5050		5.99	11.2	57.4F	7.9	220	28	12	10	--	0	119	34	5.2	.6	.10	--	162	121						
	5050		11.0	14.1C	7.9	280	1.40	1.02	.44	.00	1.95	.71	.15	.01		--		149	24				0.4			
D3 1450.00 SALINAS RIVER AT PASO ROBLES																										
03/11/74	5050		12.2	48	F R.1	330	52	22	22	--	0	202	--	20	2.0	.10	--	325	223							
0830	5050		10.7	9	C R.0	530	2.54	1.86	.96	.00	3.31		.56	.03		--		57				0.6				
D3 1675.00 SALINAS RIVER ABOVE PILITAS CRK NEAR SANTA MARGARITA																										
09/18/74	5050		6.71	9.4	62.6F	7.4	520	40	23	29	--	0	187	78	17	.7	.10	--	296	195						
	5050		10.1	17.0C	7.6	516	2.00	1.90	1.26	.00	3.66	1.62	.48	.01		--		280	42				0.9			
D3 1800.00 SALINAS RIVER NEAR POZO																										
09/18/74	5050		10.44	12.2	73.4F	R.2	640	53	31	39	--	0	200	137	26	1.5	.10	--	422	261						
	5050		14.8	23.0C	R.1	674	2.64	2.57	1.70	.00	3.28	2.85	.73	.02		--		386	97				1.1			
D3 2210.00 SAN ANTONIO RIVER AT PLEYTO																										
09/18/74	5050		8.2	70.5F	R.0		44	11	11	--	0	175	28	7.4	.0	.10	--	190	156							
	5050		9.4	21.4C	R.0	357	2.20	.92	.48	.00	2.87	.58	.21	.00		--		188	13				0.4			
D3 2215.00 SAN ANTONIO RIVER NEAR LOCKWOOD																										
03/11/74	5050		1.25	11.6	52 F 7.8	240	26	20	11	--	0	136	--	7.1	.3	.00	--	216	151							
1040	5050		10.8	11	C R.1	349	1.30	1.72	.48	.00	2.23		.20	.00		--		40				0.4				
07/09/74	5050		9.15	9.4	73 F R.3	430	54	18	16	--	0	170	78	12	.3	.00	--	310	210							
1020	5050		11.2	23	C R.2	482	2.64	1.50	.70	.00	2.79	1.62	.34	.00		--		262	70				0.5			

TABLE D-2 (CONTINUED)  
MINERAL ANALYSES OF SURFACE WATER

DATE TIME	SAMPLER LAB	S.W. DEPTH	DO SAT	TEMP	FIELD LABORATORY PH EC	MINERAL CONSTITUENTS IN				MILLIGRAMS PER LITER MILLIEQUIVALENTS PER LITER				MILLIGRAMS PER LITER						
						CA	MG	NA	K	CO3	PERCENT REACTANCE	NO3	NO3	8	F	TDS SUM	TH NCH	TURB SAR		
03 2300.00 SAN ANTONIO RIVER NEAR JOLON																				
09/18/74	5050		8.1	75.6F	7.5	420	25	11	7.6	--	0	108	30	4.4	.8	.10	--	140	110	
	5050		99	24.2C	7.6	252	1.25	.95	.33	.00	1.77	.62	.12	.01	--	--	133	22	0.3	
							49	38	13			70	25	5						
03 3225.50 NACIMIENTO RIVER NEAR JOLON																				
09/18/74	5050		8.5	70.5F	7.8	314	57	17	29	--	0	188	98	14	1.2	.10	--	314	215	
	5050	1.0	101	21.4C	7.9	544	2.84	1.46	1.26	.00	3.08	2.04	.39	.02	--	--	309	61	0.9	
							51	26	23			56	37	7						
03 3520.00 NACIMIENTO RIVER NR SAN MIGUEL																				
03/11/74	5050		12.4	53 F	7.9	180	24	12	7.6	--	0	109	--	6.1	.0	.00	--	157	111	
0945	5050		114	12 C	8.2	256	1.20	1.02	.33	.00	1.79	.17	.00	--	--	--	--	22	0.3	
							47	40	13			91		9						
07/09/74	5050		10.4	52 F	7.3	170	24	11	7.6	--	0	100	26	6.4	.9	.00	--	150	107	
0930	5050		94	11 C	7.6	243	1.20	.94	.33	.00	1.64	.54	.18	.01	--	--	125	25	0.3	
							49	38	13			69	23	8						
09/18/74	5050		13.8	59.0F	7.5	200	51	15	18	--	0	188	60	8.3	.2	.00	--	250	191	
	5050		136	15.0C	7.8	446	2.54	1.27	.78	.00	3.08	1.25	.23	.00	--	--	245	37	0.6	
							55	28	17			68	27	5						
04 1200.00 CARMEL RIVER AT ROULES DEL RIO																				
03/11/74	5050	5.05	12.4	51 F	8.0	140	19	6.9	10	--	0	84	--	9.0	.0	.00	--	130	76	
1500	5050		112	11 C	8.4	202	.95	.57	.44	.00	1.38	.25	.00	--	--	--	--	7	0.5	
							48	29	22			85		15						
07/10/74	5050	3.57	11.6	63 F	8.2	410	43	18	35	--	0	160	64	34	.5	.00	--	318	182	
0940	5050		120	17 C	8.2	519	2.15	1.49	1.52	.00	2.62	1.33	.96	.01	--	--	273	51	1.1	
							42	29	29			53	27	20						
09/19/74	5050	2.82	15.0	75.2F	8.2	820	66	24	55	--	0	190	128	69	.4	.00	--	436	264	
	5050		178	24.0C	8.1	780	3.29	1.98	2.19	.00	3.11	2.66	1.95	.01	--	--	436	108	1.5	
							43	26	21			40	34	25						
E0 B 735.0 215.0 SAN FRANCISCO BAY AT SAN MATEO BRIDGE (SHIP CHANNEL)																				
10/15/73	5050		7.3	64 F	7.9	47000	--	--	--	--	--	--	17500	--	--	--	--	32500		2A
0920	5050		76	18 C	46800	--	--	--	--	--	--	--	493.50	--	--	--	--			
11/13/73	5050		8.2	59 F	8.0	46000	--	--	--	--	--	--	16600	--	--	--	--	32400		6A
1040	5050		81	15 C	46100	--	--	--	--	--	--	--	468.12	--	--	--	--			
12/17/73	5050		8.6	53 F	7.9	33000	--	--	--	--	--	--	13600	--	--	--	--	22800		10A
1420	5050		79	12 C	32600	--	--	--	--	--	--	--	383.52	--	--	--	--			
01/14/74	5050		8.7	49 F	7.7	30500	--	--	--	--	--	--	11000	--	--	--	--	20400		11A
1200	5050		76	9 C	30400	--	--	--	--	--	--	--	310.20	--	--	--	--			
02/27/74	5050		10.0	54 F	8.0	29000	--	--	--	--	--	--	10800	--	--	--	--	20600		10A
1125	5050		93	12 C	29400	--	--	--	--	--	--	--	304.56	--	--	--	--			
03/27/74	5050		8.9	57 F	8.0	30500	--	--	--	--	--	--	10700	1.3	--	--	--	19200		8A
1020	5050		86	14 C	29100	--	--	--	--	--	--	--	301.74	.02	--	--	--			
04/24/74	5050		9.2	58 F	8.1	26200	--	--	--	--	--	--	8780	.4	--	--	--	18000		11A
1015	5050		90	14 C	26600	--	--	--	--	--	--	--	247.60	.01	--	--	--			
05/23/74	5050		7.8	61 F	7.9	31800	--	--	--	--	--	--	11500	--	--	--	--	21700		4A
0915	5050		79	16 C	34500	--	--	--	--	--	--	--	324.30	--	--	--	--			
06/20/74	5050		6.3	68 F	7.9	35500	--	--	--	--	--	--	14300	--	--	--	--	26700		11A
0745	5050		69	20 C	36800	--	--	--	--	--	--	--	403.26	--	--	--	--			
07/19/74	5050		6.8	64 F	8.0	37200	--	--	--	--	--	--	14200	--	--	--	--	28200		5A
0745	5050		71	18 C	39200	--	--	--	--	--	--	--	400.44	--	--	--	--			
08/20/74	5050		6.4	70 F	8.0	39500	--	--	--	--	--	--	14900	--	--	--	--	31200		6A
0935	5050		71	21 C	40800	--	--	--	--	--	--	--	420.18	--	--	--	--			
09/17/74	5050		6.6	67 F	8.1	42100	--	--	--	--	--	--	18400	--	--	--	--	29800		5A
0900	5050		71	19 C	41700	--	--	--	--	--	--	--	518.88	--	--	--	--			
E0 B 736.2 212.0 SAN FRANCISCO BAY AT SAN MATEO BRIDGE (PIER 662)																				
10/15/73	5050		5.8	63 F	7.9	47000	--	--	--	--	--	--	17500	--	--	--	--	32200		2A
1000	5050		60	17 C	46900	--	--	--	--	--	--	--	493.50	--	--	--	--			
11/13/73	5050		7.7	58 F	7.9	46000	--	--	--	--	--	--	16400	--	--	--	--	32600		9A
1120	5050		75	14 C	46100	--	--	--	--	--	--	--	462.48	--	--	--	--			
12/17/73	5050		9.0	53 F	7.9	33000	--	--	--	--	--	--	12700	--	--	--	--	23100		7A
1445	5050		83	12 C	32400	--	--	--	--	--	--	--	358.14	--	--	--	--			
01/14/74	5050		8.9	49 F	7.7	30500	--	--	--	--	--	--	11800	--	--	--	--	20400		12A
1230	5050		78	9 C	30600	--	--	--	--	--	--	--	332.76	--	--	--	--			
02/27/74	5050		10.9	54 F	8.0	28500	--	--	--	--	--	--	10800	--	--	--	--	20500		15A
1220	5050		101	12 C	29100	--	--	--	--	--	--	--	304.56	--	--	--	--			



TABLE D-2 (CONTINUED)  
MINERAL ANALYSES OF SURFACE WATER

DATE TIME	SAMPLER LAB	S.W. Q DEPTH	DO SAT	TEMP	FIELD LABORATORY PH EC	MINERAL CONSTITUENTS IN MILLIEQUIVALENTS PER LITER										MILLIGRAMS PER LITER PERCENT REACTANCE PER LITER					MILLIGRAMS PER LITER				
						CA	MG	NA	K	CO3	HCO3	SO4	CL	NO3		B	F	TDS SUM	TH NCH	TURB SAR					
.....																									
E0 B 736.2 212.0						SAN FRANCISCO BAY AT SAN MATEO RRIODE (PIER 662)										CONTINUED									
03/27/74	5050		8.4	57	F	8.0	30500	--	--	--	--	--	10500	1.5	--	--	19300			8A					
1100	5050		81	14	C		28600						296.10	.02	--	--									
04/24/74	5050		9.8	58	F	8.1	25200	--	--	--	--	--	8540	1.5	--	--	17300			8A					
1100	5050		96	14	C		25500						240.83	.02	--	--									
05/23/74	5050		12.4	62	F	8.2	33000	--	--	--	--	--	12100	--	--	--	22900			2A					
1000	5050		127	17	C		35900						341.22	--	--	--									
06/20/74	5050		7.4	6A	F	8.0	35800	--	--	--	--	--	15600	--	--	--	27200			20A					
0845	5050		81	2n	C		37200						439.92	--	--	--									
07/19/74	5050		6.5	68	F	8.0	38400	--	--	--	--	--	14900	--	--	--	29600			16A					
0830	5050		71	2n	C		40200						420.18	--	--	--									
08/20/74	5050		6.3	7n	F	8.0	39700	--	--	--	--	--	15300	--	--	--	31500			36A					
1030	5050		70	21	C		41000						431.46	--	--	--									
09/17/74	5050		5.4	68	F	8.0	41300	--	--	--	--	--	21500	--	--	--	30000			20A					
094n	5050		59	2r	C		41900						606.30	--	--	--									
E0 B 749.2 222.4						SAN FRANCISCO BAY AT TREASURE ISLAND																			
10/15/73	5050		7.1	60	F	8.0	45000	--	--	--	--	--	17200	--	--	--	31400			3A					
0800	5050		71	16	C		46100						485.04	--	--	--									
11/13/73	5050		7.8	57	F	7.9	46000	--	--	--	--	--	16100	--	--	--	32200			13A					
0915	5050		75	14	C		45000						454.02	--	--	--									
12/17/73	5050		8.8	52	F	7.9	32000	--	--	--	--	--	12800	--	--	--	22500			7A					
1245	5050		80	11	C		32300						360.96	--	--	--									
01/14/74	5050		9.2	49	F	7.8	29000	--	--	--	--	--	11700	--	--	--	20400			9A					
1045	5050		80	9	C		30600						329.94	--	--	--									
02/27/74	5050		9.0	52	F	8.0	34000	--	--	--	--	--	12900	--	--	--	25300			5A					
1000	5050		82	11	C		36800						363.78	--	--	--									
03/27/74	5050		9.0	54	F	8.0	33100	--	--	--	--	--	11500	.7	--	--	21300			5A					
0900	5050		84	12	C		31000						324.30	.01	--	--									
04/24/74	5050		8.1	54.5F	F	7.9	33500	--	--	--	--	--	11400	1.2	--	--	22700			9A					
0830	5050		76	12.5C			34400						321.48	.02	--	--									
05/23/74	5050		7.7	5A	F	7.9	36000	--	--	--	--	--	13600	--	--	--	26800			7A					
0745	5050		75	14	C		40800						383.52	--	--	--									
06/20/74	5050		7.4	61	F	8.0	37300	--	--	--	--	--	17000	--	--	--	31500			15A					
0625	5050		75	16	C		43000						479.40	--	--	--									
07/19/74	5050		6.7	64	F	8.0	40500	--	--	--	--	--	16300	--	--	--	31700			3A					
0630	5050		70	18	C		43200						459.66	--	--	--									
08/20/74	5050		6.4	65	F	8.0	43000	--	--	--	--	--	16900	--	--	--	33900			4A					
0810	5050		68	18	C		43500						476.58	--	--	--									
09/17/74	5050		6.7	63	F	8.0	40700	--	--	--	--	--	19800	--	--	--	29800			3A					
072n	5050		69	17	C		41700						558.36	--	--	--									
E0 B 801.8 222.3						SAN PABLO BAY NEAR PINOLE POINT																			
10/03/73	5001		7.3	64.4F	F	7.9	33550	--	--	--	--	0	120	--	13200	--	--	--		3AF					
0905	5050		77	1A.0C		7.8	36900					.00	1.97	--	372.24	--	--	5.2							
		3																							
12/05/73	5001		9.4	51.8F	F	7.2	14900	--	--	--	--	0	81	--	5440	--	--	--		8AF					
1105	5050		85	11.0C		7.6	16800					.00	1.33	--	153.41	--	--	--							
		3																							
E0 B 802.7 207.0						SUISUN BAY OFF BULLS HEAD POINT NEAR MARTINEZ																			
10/03/73	5001		8.0	6A.2F	F	8.0	16400	--	--	--	--	0	100	--	5380	--	--	--	9640	10AF					
1040	5050		86	19.0C		7.9	15800					.00	1.64	--	151.72	--	--	9.8							
		3																							
10/31/73	5001		7.6	60.8F	F	7.8	15950	--	--	--	--	0	97	--	6040	--	--	--	11500	14AF					
0735	5050		77	16.0C		7.6	18000					.00	1.59	--	170.33	--	--	10.8							
		3																							
11/13/73	5001		59.9F					--	--	2130	--	--	--	3800	--	--	--	7140							
1145	5050		14.5C			11900				92.66				107.16	--	--	--								
12/05/73	5001		9.7	51.8F	F	7.1	3790	--	--	--	--	0	61	--	1220	--	--	--	2120	24AF					
1230	5050		88	11.0C		7.9	4140					.00	1.00	--	34.40	--	--	17.0							
		3																							
01/16/74	5001		10.1	46.4F	F	7.7	7080	--	--	--	--	0	76	--	2340	--	--	--	4450	19AF					
0810	5050		85	8.0C		7.8	7940					.00	1.25	--	65.99	--	--	15.4							
		3																							

MINERAL ANALYSES OF SURFACE WATER

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TABLE D-2 (CONTINUED)  
MINERAL ANALYSES OF SURFACE WATER

DATE TIME	SAMPLER LAB	G.H. O DEPTH	DO SAT	TEMP	FIELD LABORATORY PH EC	MINERAL CONSTITUENTS IN					MILLIGRAMS PER LITER MILLIEQUIVALENTS PER LITER PERCENT REACTANCE VALUE					MILLIGRAMS PER LITER				
						CA	MG	NA	K	CO3	HCO3	SO4	CL	NO3	B	F	TDS SUM	TH NCH	TURB SAR	
En B 802.8 155.0 SACRAMENTO RIVER AT CHIPPS ISLAND						CONTINUED														
07/25/74 0915	5001 5050		7.5 87	73 23	F C	7.8 2850	--	--	--	--	0 .00	64 1.05	-- 25.94	920 --	-- 13.6	--	--	1640	--	52AF
08/14/74 1345	5001 5050		7.8 87	70 21	F C	7.9 2120	--	--	--	--	0 .00	66 1.08	-- 17.29	613 --	-- 15.2	--	--	1210	--	41AF
08/28/74 1345	5001 5050		8.4 94	69.8F 21.0C	7.9 C	1130	--	--	--	--	0 .00	66 1.08	-- 9.45	335 --	-- 15.8	--	--	715	--	54AF
09/11/74 1405	5001 5050		8.2 93	72 22	F C	8.0 336	--	--	--	--	0 .00	70 1.15	-- 1.64	58 --	-- 14.4	--	--	180	--	26AF
09/25/74 1235	5001 5050		8.9 95	66 10	F C	8.0 295	--	--	--	--	0 .00	70 1.15	-- 1.55	55 --	-- 14.0	--	--	180	--	35AF
En B 803.5 201.4 SUISUN BAY NEAR PORT CHICAGO																				
11/13/73 1100	5001 5050		59.9F 15.5C			6500	--	--	1120 48.72	--	--	--	-- 54.14	1920 --	-- --	--	--	3700	--	
En B 803.5 217.0 SAN PABLO BAY NEAR RODEO																				
10/03/73 0945	5001 5050		7.7 81	64.4F 18.0C	7.9 C	24800 7.8 25300	--	--	--	--	0 .00	110 1.80	-- 251.54	8920 --	-- 7.4	--	--	16600	--	5AF
12/05/73 1145	5001 5050		10.0 90	51.4F 11.0C	7.2 C	9650 7.6 10700	--	--	--	--	0 .00	71 1.16	-- 91.93	3260 --	-- 15.4	--	--	6010	--	15AF
01/16/74 0730	5001 5050		10.1 67	48.2F 9.0C	7.6 C	5480 7.8 5870	--	--	--	--	0 .00	74 1.21	-- 48.22	1710 --	-- 16.2	--	--	3180	--	33AF
02/15/74 0925	5001 5050		9.4 83	50.0F 10.0C	7.6 C	12600 7.7 13300	--	--	--	--	0 .00	82 1.34	-- 132.82	4710 --	-- 13.0	--	--	8630	--	20AF
En B 803.6 150.3 SUISUN BAY OFF MIDDLE POINT																				
10/31/73 0830	5050 5050		7.9 81	62.6F 17.0C	7.6 C	3930 7.8 4550	--	--	--	--	0 .00	76 1.25	-- 36.10	1280 --	-- 15.0	--	--		--	32AF
12/05/73 1335	5050 5050		9.8 89	51.8F 11.0C	7.1 C	129 7.8 132	--	--	--	--	0 .00	52 .85	-- .24	8.5 --	-- 17.2	--	--		--	38AF
03/20/74 1330	5001 5050		9.0 87	57.2F 14.0C	7.9 C	150	--	--	--	--	--	--	-- 9.3 .26	-- --	-- 16.6	--	--		--	31AF
04/03/74 1335	5001 5050		9.4 87	54 12	F C	7.7 124	--	--	--	--	--	--	-- 7.6 .22	-- --	-- 14.8	--	--		--	132AF
04/18/74 1300	5001 5050		9.3 90	57 14	F C	7.6 150	--	--	--	--	--	--	-- 8.3 .23	-- --	-- 16.8	--	--		--	33AF
05/01/74 1215	5001 5050		9.0 91	61 16	F C	7.6 449	--	--	--	--	--	--	-- 94 2.65	-- --	-- 16.2	--	--		--	35AF
05/15/74 1040	5001 5050		8.7 91	64 18	F C	8.1 301	--	--	--	--	--	--	-- 50 1.41	-- --	-- 14.6	--	--		--	28AF
06/13/74 1015	5001 5050		8.6 94	68 20	F C	8.1 520	--	--	--	--	--	--	-- 127 3.58	-- --	-- 14.2	--	--		--	40AF
06/27/74 1020	5001 5050		7.9 86	68 20	F C	7.8 2470	--	--	--	--	--	--	-- 802 22.62	-- --	-- 13.2	--	--		--	54AF
07/11/74 0825	5001 5050		8.2 90	68 20	F C	7.9 5430	--	--	--	--	--	--	-- 2240 63.17	-- --	-- 11.2	--	--		--	25AF
07/25/74 0855	5001 5050		7.7 89	73 23	F C	7.8 4680	--	--	--	--	0 .00	66 1.08	-- 44.56	1580 --	-- 12.0	--	--		--	36AF
08/14/74 1220	5001 5050		8.0 89	70 21	F C	8.0 3620	--	--	--	--	0 .00	68 1.11	-- 33.84	1200 --	-- 15.8	--	--		--	42AF
08/28/74 1325	5001 5050		8.6 96	69.8F 21.0C	8.0 C	2150	--	--	--	--	0 .00	66 1.08	-- 18.50	656 --	-- 14.0	--	--		--	50AF
09/11/74 1340	5001 5050		8.1 92	72 22	F C	7.9 1910	--	--	--	--	0 .00	70 1.15	-- 17.57	623 --	-- 13.4	--	--		--	35AF
09/25/74 1215	5001 5050		8.9 95	66 10	F C	8.0 696	--	--	--	--	0 .00	70 1.15	-- 4.40	156 --	-- 13.8	--	--		--	23AF

TABLE D-2 (CONTINUED)  
MINERAL ANALYSES OF SURFACE WATER

DATE TIME	SAMPLER LAB	G.H. O DEPTH	DO SAT	TEMP	FIELD LABORATORY PH EC		MINERAL CONSTITUENTS IN					MILLIGRAMS PER LITER PERCENT REACTANCE VALUE					MILLIGRAMS PER LITER				
					CA	MG	NA	K	CO3	HCO3	SO4	CL	NO3	B	F	TDS SUM	TM NCH	TURB SAR			
En B 804.0 203.0 SUISUN BAY NEAR PRESTON POINT																					
10/03/73 1105	5001 5050	3	8.1 85	64.4F 18.0C	8.0 7.9	6820 6900	--	--	--	--	0 .00	91 1.49	--	2060 58.09	--	--	--	3890 12.8	--	--	40AF
10/31/73 0800	5001 5050	3	7.9 81	62.6F 17.0C	7.7 7.7	9874 11200	--	--	--	--	0 .00	87 1.43	--	3720 104.90	--	--	--	6560 12.8	--	--	27AF
12/05/73 1300	5001 5050	3	9.8 89	51.8F 11.0C	7.1 7.7	385 379	--	--	--	--	0 .00	58 .95	--	67 1.89	--	--	--	200 --	--	--	27AF
01/16/74 0835	5001 5050	3	10.2 88	48.2F 9.0C	7.3 7.7	2370 2380	--	--	--	--	0 .00	70 1.15	--	615 17.34	--	--	--	1310 17.0	--	--	22AF
02/15/74 1045	5001 5050	3	10.1 87	48.2F 9.0C	7.7 8.1	385 411	--	--	--	--	0 .00	65 1.07	--	75 2.12	--	--	--	234 16.4	--	--	44AF
03/20/74 1255	5001 5050	3	9.3 90	57.2F 14.0C	8.0 8.0	703	--	--	--	--	--	--	--	172 4.85	--	--	--	387 16.0	--	--	34AF
04/03/74 1205	5001 5050	3	9.6 91	55 F 13 C	7.7 C	124	--	--	--	--	--	--	--	8.8 .25	--	--	--	94 15.2	--	--	124AF
04/18/74 1230	5001 5050	3	9.4 91	57 F 14 C	7.6 C	154	--	--	--	--	--	--	--	11 .31	--	--	--	101 16.8	--	--	36AF
05/01/74 1140	5001 5050	3	9.1 92	61 F 16 C	7.7 C	1350	--	--	--	--	--	--	--	372 10.49	--	--	--	775 16.0	--	--	664F
05/15/74 1015	5001 5050	3	9.2 95	63 F 17 C	8.0 C	2610	--	--	--	--	--	--	--	833 23.49	--	--	--	1630 14.0	--	--	54AF
06/13/74 0950	5001 5050	3	8.3 89	66 F 19 C	8.1 C	3680	--	--	--	--	--	--	--	990 27.92	--	--	--	2010 13.4	--	--	60AF
06/27/74 0950	5001 5050	3	7.8 85	68 F 20 C	7.8 C	3910	--	--	--	--	--	--	--	1500 42.30	--	--	--	2820 12.0	--	--	76AF
07/11/74 0800	5001 5050	3	8.0 86	66 F 19 C	8.0 C	9120	--	--	--	--	--	--	--	3400 95.88	--	--	--	5610 --	--	--	33AF
07/25/74 0835	5001 5050	3	7.6 88	73 F 23 C	7.8 C	8990	--	--	--	--	0 .00	72 1.18	--	2950 83.19	--	--	--	5790 8.6	--	--	42AF
08/14/74 1255	5001 5050	3	8.7 95	68 F 20 C	8.0 C	10200	--	--	--	--	0 .00	76 1.25	--	3920 110.54	--	--	--	7150 15.9	--	--	21AF
08/28/74 1300	5001 5050	3	8.5 95	69.8F 21.0C	8.2 C	5610	--	--	--	--	0 .00	82 1.34	--	2350 66.27	--	--	--	4360 9.6	--	--	544F
09/11/74 1315	5001 5050	3	8.1 92	72 F 22 C	7.9 C	2250	--	--	--	--	0 .00	70 1.15	--	849 23.94	--	--	--	1540 13.0	--	--	444F
09/25/74 1155	5001 5050	3	9.0 96	66 F 19 C	7.7 C	1560	--	--	--	--	0 .00	68 1.11	--	528 14.89	--	--	--	1050 13.2	--	--	25AF
En B 804.4 156.2 MONKOR BAY NEAR WHEELER POINT																					
10/04/73 1005	5001 5050	3	8.1 87	66.2F 19.0C	7.8 8.1	1830 1800	--	--	--	--	0 .00	85 1.39	--	450 12.69	--	--	--	-- 16.8	--	--	50AF
11/01/73 0835	5001 5050	3	8.2 84	62.6F 17.0C	7.6 7.7	2390 2570	--	--	--	--	0 .00	72 1.18	--	706 19.91	--	--	--	-- 15.8	--	--	48AF
12/06/73 1120	5001 5050	3	9.9 87	50.0F 10.0C	7.1 8.0	155 173	--	--	--	--	0 .00	60 .98	--	16 .45	--	--	--	-- 18.0	--	--	56AF
01/17/74 1035	5001 5050	3	10.2 88	48.2F 9.0C	7.7 8.0	168 174	--	--	--	--	0 .00	69 1.13	--	11 .31	--	--	--	-- 16.8	--	--	23AF
02/14/74 0940	5001 5050	3	9.8 85	48.2F 9.0C	7.6 7.7	146 161	--	--	--	--	0 .00	69 1.13	--	8.8 .25	--	--	--	-- 16.0	--	--	56AF
03/21/74 1325	5001 5050	3	9.3 88	55.4F 13.0C	7.8 C	150	--	--	--	--	--	--	--	7.8 .22	--	--	--	-- 16.0	--	--	34AF
04/02/74 1045	5001 5050	3	10.1 93	54 F 12 C	7.7 C	126	--	--	--	--	--	--	--	8.1 .23	--	--	--	-- 15.0	--	--	36AF
04/17/74 1115	5001 5050	3	9.6 95	59 F 15 C	7.4 C	149	--	--	--	--	--	--	--	8.8 .25	--	--	--	-- 16.8	--	--	44AF
04/30/74 1005	5001 5050	3	9.2 93	61 F 16 C	7.6 C	159	--	--	--	--	--	--	--	12 .34	--	--	--	-- 15.6	--	--	24AF



TABLE D-2 (CONTINUED)  
MINERAL ANALYSES OF SURFACE WATER

DATE TIME	SAMPLER LAB	G.W. Q DEPTH	DO SAT	TEMP	FIELD LABORATORY PH EC	MINERAL CONSTITUENTS IN										MILLIGRAMS PER LITER MILLIEQUIVALENTS PER LITER					MILLIGRAMS PER LITER					TURB SAF
						CA	MG	NA	K	CO3	HCO3	PERCENT REACTANCE VALUE			B	F	TDS SUM	TH NCH								
												NO3	SO4	CL												
E0 B 804.4 156.2 MONKER BAY NEAR WHEELER POINT																					CONTINUED					
05/14/74 0905	5001 5050		9.1 94	63 17	F C	7.8	234	--	--	--	--	--	--	34 .96	--	--	--	15.0		68AF						
		3																								
06/12/74 0720	5001 5050		7.3 80	68 20	F C	8.3	363	--	--	--	--	--	--	73 2.06	--	--	--	14.0		74AF						
		3																								
06/26/74 0805	5001 5050		7.6 83	68 20	F C	7.8	1050	--	--	--	--	--	--	300 8.46	--	--	--	13.8		64AF						
		3																								
07/10/74 0630	5001 5050		8.0 87	68 20	F C	7.8	4020	--	--	--	--	--	--	1300 36.66	--	--	--	11.6		46AF						
		3																								
07/24/74 0700	5001 5050		7.6 86	72 72	F C	7.7	3880	--	--	--	--	0 .00	66 1.08	--	1300 36.66	--	--	--	12.4		66AF					
		3																								
08/13/74 1155	5001 5050		7.6 83	68 20	F C	7.7	3220	--	--	--	--	0 .00	66 1.08	--	1030 29.05	--	--	--	12.8		58AF					
		3																								
08/27/74 1235	5001 5050		7.8 87	70 21	F C	7.7	1510	--	--	--	--	0 .00	70 1.15	--	410 11.56	--	--	--	14.4		68AF					
		3																								
09/12/74 1240	5001 5050		8.2 93	72 22	F C	8.0	476	--	--	--	--	0 .00	70 1.15	--	116 3.27	--	--	--	14.0		52AF					
		3																								
09/24/74 1045	5001 5050		8.7 93	66 19	F C	7.8	213	--	--	--	--	0 .00	72 1.18	--	25 .71	--	--	--	14.0		35AF					
		3																								
E0 B 805.3 226.3 SAN PABLO BAY NEAR MOUTH OF PETALUMA RIVER																										
10/03/73 0915	5001 5050		7.6 78	62.6F 17.0C	6.7 7.8	30600 33900	--	--	--	--	0 .00	116 1.90	--	12300 346.86	--	--	--	6.0		10AF						
		3																								
12/05/73 1035	5001 5050		9.3 89	51.8F 11.0C	7.2 7.5	10300 11500	--	--	--	--	0 .00	73 1.20	--	3560 100.39	--	--	--	14.4		56AF						
		3																								
E0 B 807.0 202.3 GRIZZLY BAY AT DOLPHIN NEAR SUISUN SLOUGH																										
10/04/73 0815	5001 5050		8.1 85	64.4F 18.0C	7.1 7.8	5020 5320	--	--	--	--	0 .00	89 1.46	--	1500 42.30	--	--	--	3020		45AF						
		3																								
10/31/73 0655	5001 5050		8.1 82	60.8F 16.0C	7.6 7.6	5580 5900	--	--	--	--	0 .00	80 1.31	--	1960 55.27	--	--	--	3350		45AF						
		3																								
12/06/73 0935	5001 5050		9.8 87	50.0F 10.0C	7.1 7.8	142 148	--	--	--	--	0 .00	57 .93	--	11 .31	--	--	--	102		40AF						
		3																								
01/17/74 0915	5001 5050		10.6 91	48.2F 9.0C	7.7 8.0	184 177	--	--	--	--	0 .00	70 1.15	--	13 .37	--	--	--	96		22AF						
		3																								
02/14/74 0905	5001 5050		10.3 89	48.2F 9.0C	7.6 8.1	239 248	--	--	--	--	0 .00	68 1.11	--	33 .93	--	--	--	145		62AF						
		3																								
03/21/74 1250	5001 5050		9.8 95	57.2F 14.0C	7.7	155	--	--	--	--	--	--	--	9.8 .28	--	--	--	93		44AF						
		3																								
04/02/74 1015	5001 5050		9.5 90	55 13	F C	7.5	150	--	--	--	--	--	--	10 .28	--	--	--	112		34AF						
		3																								
04/17/74 1040	5001 5050		9.6 95	50 15	F C	7.3	146	--	--	--	--	--	--	6.9 .19	--	--	--	72		56AF						
		3																								
04/30/74 0930	5001 5050		8.8 89	61 16	F C	7.7	175	--	--	--	--	--	--	15 .42	--	--	--	107		34AF						
		3																								
05/14/74 0835	5001 5050		9.2 93	61 16	F C	8.0	282	--	--	--	--	--	--	43 1.21	--	--	--	160		78AF						
		3																								
06/13/74 0850	5001 5050		8.2 88	66 19	F C	7.9	2350	--	--	--	--	--	--	778 21.94	--	--	--	1490		111AF						
		3																								
06/27/74 0845	5001 5050		7.9 86	68 20	F C	7.8	2510	--	--	--	--	--	--	849 23.94	--	--	--	1510		86AF						
		3																								
07/11/74 0640	5001 5050		7.6 81	66 19	F C	7.8	6880	--	--	--	--	--	--	2220 62.60	--	--	--	4320		44AF						
		3																								
07/25/74 0715	5001 5050		7.7 89	73 23	F C	7.8	7600	--	--	--	--	0 .00	70 1.15	--	2740 77.27	--	--	--	4840		33AF					
		3																								
08/14/74 1155	5001 5050		8.4 92	68 29	F C	8.1	6840	--	--	--	--	0 .00	72 1.18	--	2790 78.68	--	--	--	4260		54AF					
		3																								

TABLE D-2 (CONTINUED)  
MINERAL ANALYSES OF SURFACE WATER

DATE TIME	SAMPLER LAB	G.M. Q DEPTH	DO SAT	TEMP	FIELD LABORATORY PH EC	MINERAL CONSTITUENTS IN				MILLIGRAMS PER LITER MILLIEQUIVALENTS PER LITER PERCENT REACTANCE VALUE				MILLIGRAMS PER LITER					TURB SAR
						CA	MG	NA	K	CO3	HCO3	SO4	CL	NO3	B	F	TOS SUM	TH NCH	
E0 B 807.0 202.3 GRIZZLY BAY AT DOLPHIN NEAR SUISUN SLOUGH																			
08/28/74	5001		8.5	68.0F	8.1	4260	--	--	--	0	78	--	1540	--	--	--	2680	--	64AF
1205	5050		93	20.0C			--	--	--	.00	1.15	--	43.43	--	--	11.8			
		3																	
09/12/74	5001		8.3	72 F	7.9	2410	--	--	--	0	72	--	802	--	--	--	1470	--	62AF
1205	5050		94	22 C			--	--	--	.00	1.18	--	22.62	--	--	12.4			
		3																	
09/25/74	5001		9.0	64 F	7.7	947	--	--	--	0	112	--	233	--	--	--	523	--	64AF
1040	5050		95	18 C			--	--	--	.00	1.84	--	6.57	--	--	13.2			
		3																	
E0 S 809.2 205.3 CORDELIA SLOUGH AT CYGNUS																			
10/25/73	5001		2.2	59.0F	7.1	6700	--	--	--	0	104	--	2450	--	--	--			
0850	5050		22	15.0C	7.1	8490	--	--	--	.00	1.70	--	69.09	--	--	13.0			
		3																	
11/19/73	5001		7.6	54 F	7.4	3400	--	--	--	0	88	--	1210	--	--	--			56AF
1045	5050		70	12 C	7.4	4590	--	--	--	.00	1.44	--	34.12	--	--	14.0			
		3																	
12/18/73	5001		8.3	44 F	7.1	1030	--	--	--	0	69	--	230	--	--	--			70AF
1105	5050		72	9 C	7.6	1000	--	--	--	.00	1.13	--	6.49	--	--	17.8			
		3																	
01/15/74	5001		9.7	45 F	7.3	1470	--	--	--	0	85	--	306	--	--	--			55AF
0930	5050		80	7 C	7.6	1290	--	--	--	.00	1.39	--	8.63	--	--	16.6			
		3																	
E0 S 810.8 202.8 SUISUN SLOUGH AT VOLANTI SLOUGH ON JOICE ISLAND																			
10/04/73	5001		7.1	64.4F	7.6	6040	--	--	--	0	103	--	2230	--	--	--	3990	--	31AF
0900	5050		75	18.0C	8.1	6810	--	--	--	.00	1.69	--	62.89	--	--	7.4			
		3																	
10/25/73	5001		8.1	60.8F	7.6	5700	--	--	--	0	97	--	2060	--	--	--			72AF
1245	5050		82	10.0C	7.9	7160	--	--	--	.00	1.59	--	58.09	--	--	10.8			
		3																	
11/19/73	5001		6.6	54 F	7.4	3950	--	--	--	0	115	--	1480	--	--	--			72AF
1405	5050		61	12 C	7.6	5720	--	--	--	.00	1.88	--	41.74	--	--	12.6			
		3																	
12/06/73	5001		8.1	50.0F	6.8	1920	--	--	--	0	79	--	493	--	--	--	1110	--	52AF
1020	5050		72	10.0C	7.5	2000	--	--	--	.00	1.29	--	13.90	--	--	16.8			
		3																	
12/14/73	5001		7.3	50 F	7.1	2570	--	--	--	0	96	--	--	--	--	--			6AF
1445	5001		62	10 C			--	--	--	.00	1.57	--	--	--	--	15.6			
		3																	
01/15/74	5001		8.7	45 F	7.4	2225	--	--	--	0	124	--	434	--	--	--			65AF
1250	5050		71	7 C	7.5	1860	--	--	--	.00	2.03	--	12.24	--	--	15.0			
		3																	
02/14/74	5001		8.9	48.2F	7.4	1370	--	--	--	0	110	--	336	--	--	--	768	--	76AF
0805	5050		77	9.0C	8.0	1430	--	--	--	.00	1.80	--	9.48	--	--	15.4			
		3																	
03/22/74	5001		8.4	54.1F	7.5	815	--	--	--	0	90	--	206	--	--	--	621	--	58AF
1515	5050		82	14.5C			--	--	--	.00	1.48	--	5.81	--	--	16.0			
		3																	
05/14/74	5001		7.8	63 F	7.8	1160	--	--	--	0	98	--	286	--	--	--	658	--	49AF
0845	5050		80	17 C			--	--	--	.00	1.61	--	8.07	--	--	13.6			
		3																	
06/28/74	5001		7.4	72 F	8.7	2500	--	--	--	3.0	90	--	580	--	--	--	1300	--	65AF
0945	5001		84	22 C			--	--	--	.10	1.48	--	16.36	--	--	7.3			
		3																	
07/25/74	5001		7.6	77 F	7.6	5100	--	--	--	0	90	--	--	--	--	--	3100	--	32AF
0757	5001		91	25 C			--	--	--	.00	1.48	--	--	--	--	6.8			
		3																	
08/29/74	5001		8.6	72 F	7.7	4170	--	--	--	0	80	--	1400	--	--	--	716	--	47AF
1335	5001		98	22 C			--	--	--	.00	1.31	--	39.48	--	--	6.2			
		3																	
E0 S 811.0 204.8 CHADBOURNE SLOUGH AT CHADBOURNE ROAD																			
10/25/73	5001		7.0	60.8F	7.6	5700	--	--	--	0	99	--	2140	--	--	--			60AF
1125	5050		71	16.0C	7.5	7250	--	--	--	.00	1.62	--	60.35	--	--	10.4			
		3																	
11/19/73	5001		7.0	52 F	7.2	4950	--	--	--	0	91	--	1360	--	--	--			64AF
1305	5050		63	11 C	7.6	4920	--	--	--	.00	1.49	--	38.35	--	--	17.2			
		3																	
12/18/73	5001		7.5	50 F	7.0	2630	--	--	--	0	93	--	607	--	--	--			70AF
1300	5050		66	10 C	8.0	2440	--	--	--	.00	1.52	--	17.12	--	--	10.0			
		3																	
01/15/74	5001		9.3	50 F	7.4	1220	--	--	--	0	111	--	238	--	--	--			80AF
1140	5050		82	10 C	7.4	1160	--	--	--	.00	1.02	--	6.71	--	--	20.0			
		3																	
E0 S 811.2 158.5 MONTEZUMA SLOUGH AT GRIZZLY ISLAND ROAD																			
10/25/73	5001		7.7	60.8F	7.6	5600	--	--	--	0	91	--	2150	--	--	--			39AF
1340	5050		78	16.0C	8.0	7070	--	--	--	.00	1.49	--	60.63	--	--	11.2			
		3																	
11/19/73	5001		8.3	54 F	7.4	2400	--	--	--	0	72	--	874	--	--	--			52AF
1455	5050		77	12 C	7.6	3720	--	--	--	.00	1.18	--	24.65	--	--	14.2			
		3																	



TABLE D-2 (CONTINUED)  
MINERAL ANALYSES OF SURFACE WATER

DATE TIME	SAMPLER LAB	G.H. Q DEPTH	DO SAT	TEMP	FIELD LABORATORY PH EC	MINERAL CONSTITUENTS IN					MILLIGRAMS PER LITER MILLIEQUIVALENTS PER LITER PERCENT REACTANCE VALUE					MILLIGRAMS PER LITER				
						CA	MG	NA	K	CO3	HCO3	SO4	CL	NO3	B	F	TDS SUM	TH NCH	TURB SAR	
E0 S 811.2 158.5 MONTEZUMA SLOUGH AT GRIZZLY ISLAND ROAD						CONTINUED														
12/18/73 1535	5001 5050		8.6 74	48 9	F C	7.1 8.1	1100 965	--	--	--	--	0 .00	65 1.07	--	234 6.60	--	--	17.2		55AF
		3																		
01/15/74 1340	5001 5050		10.1 83	45 7	F C	7.3 7.8	850 758	--	--	--	--	0 .00	71 1.16	--	159 4.48	--	--	16.8		38AF
		3																		
E0 S 811.5 207.2 CORDELIA SLOUGH AT UPPER END																				
10/25/73 0955	5001 5050		7.8 79	60.8F 16.0C	8.1 7.7	840 811	--	--	--	--	0 .00	169 2.77	--	136 3.84	--	--	15.0		29AF	
		1																		
03/05/74 1315	5001 5001		9.5 88	54 12	F C	7.6 7.6	880	--	--	--	--	0 .00	120 1.97	--	--	--	26.4		40AF	
		3																		
03/22/74 1230	5001 5001		8.4 83	59 15	F C	7.8 7.8	810	--	--	--	--	0 .00	160 2.62	--	--	--	35.0		38AF	
		3																		
04/18/74 1215	5001 5001		8.3 84	61 16	F C	7.4 7.4	750	--	--	--	--	--	--	--	--	--	45.0		43A	
		3																		
05/14/74 1105	5001 5001		10.0 103	63 17	F C	8.7 8.7	940 260	--	--	--	--	10 .33	158 2.59	--	--	--	--	--	27AF	
		3																		
06/28/74 1145	5001 5001		7.8 87	70 21	F C	8.9 8.9	950	--	--	--	--	4.0 .13	176 2.88	--	129 3.64	--	--	13.6	460	30AF
		3																		
07/25/74 1005	5001 5001		6.7 80	77 25	F C	7.8 7.8	1240	--	--	--	--	0 .00	182 2.98	--	--	--	31.2	745	23AF	
		3																		
08/29/74 1230	5001 5001		7.6 83	68 20	F C	7.7 7.7	1090	--	--	--	--	0 .00	176 2.88	--	266 7.50	--	--	12.2	2890	45AF
		3																		
E0 S 813.6 201.2 HILL SLOUGH AT GRIZZLY ISLAND ROAD																				
10/25/73 1410	5001 5050		7.1 72	60.8F 16.0C	7.8 8.0	6000 7570	--	--	--	--	0 .00	148 2.43	--	2190 61.76	--	--	5.4		46AF	
		3																		
11/19/73 1530	5001 5050		6.5 57	50 10	F C	7.4 7.6	1190 1150	--	--	--	--	0 .00	109 1.79	--	250 7.05	--	--	10.6		120AF
		3																		
12/18/73 1615	5001 5050		7.1 63	50 10	F C	7.3 7.7	3180 3020	--	--	--	--	0 .00	180 2.95	--	794 22.39	--	--	14.2		55AF
		3																		
01/15/74 1420	5001 5050		7.4 64	48 9	F C	7.5 7.6	1675 1520	--	--	--	--	0 .00	175 2.87	--	324 9.14	--	--	11.6		60AF
		3																		
E2 E 806.9 230.3 PETALUMA RIVER AT HIGHWAY 37 AT GREEN POINT																				
10/19/73 1000	5050 5050		9.6 96	60 16	F C	7.9 7.7	36000 36600	--	--	--	--	--	--	--	--	--	--	25200		15A
11/26/73 0845	5050 5050		8.6 73	47 8	F C	7.6 7.1	16300 16400	--	--	--	--	--	--	--	--	--	--	10000		23A
05/22/74 1010	5052 5050		9.7 99	62.2F 16.8C	7.8 7.8	7300 13400	--	--	--	--	--	--	--	--	--	--	--	8480		21A
06/05/74 0640	5052 5050		7.5 82	66.2F 20.1C	7.8 7.4	16000 22600	--	--	--	--	--	--	--	--	.6 .01	--	--	13800		105A
E2 E 809.5 232.5 PETALUMA RIVER BELOW SAN ANTONIO CREEK																				
05/22/74 1030	5052 5050		9.1 93	61.9F 16.6C	7.9 7.9	8000 12700	--	--	--	--	--	--	--	--	--	--	--	7790		27A
06/05/74 0705	5052 5050		7.7 84	67.8F 10.9C	6.8 7.8	11000 19500	--	--	--	--	--	--	--	--	--	--	--	11900		34A
E2 E 809.5 233.0 SAN ANTONIO CREEK NEAR MOUTH																				
10/19/73 0920	5050 5050		6.9 69	60 16	F C	7.6 7.7	38000 38700	--	--	--	--	--	--	--	--	--	--	27600		18A
11/26/73 0915	5050 5050		7.6 65	48 9	F C	7.3 7.0	10500 10100	--	--	--	--	--	--	--	--	--	--	6080		32A
05/22/74 0940	5052 5050		8.1 82	61.3F 16.3C	7.8 7.8	8000 17000	--	--	--	--	--	--	--	--	--	--	--	10400		27A
06/05/74 0717	5052 5050		7.2 78	66.7F 19.3C	7.6 7.5	13000 20400	--	--	--	--	--	--	--	--	.7 .01	--	--	12700		60A

TABLE D-2 (CONTINUED)  
MINERAL ANALYSES OF SURFACE WATER

DATE TIME	SAMPLER LAB	O.M. Q DEPTH	DO SAT	TEMP	FIELD LABORATORY		MINERAL CONSTITUENTS IN										MILLIGRAMS PER LITER MILLIEQUIVALENTS PER LITER PERCENT REACTANCE VALUE					MILLIGRAMS PER LITER				
					PH	EC	CA	MG	NA	K	CO3	HCO3	SO4	CL	NO3	B	F	TDS SUM	TH NCH	TURB SAR						
E2 E 810.6 224.9 SONOMA CREEK AT CAMP SIX																										
05/29/74 1330	5050 5050		6.9 78	71 22	F C	7.8 7.6	10450 11400	--	--	--	--	--	--	--	--	--	--	6400		130A						
E2 E 811.8 226.1 SONOMA CREEK AT MCGILL																										
05/29/74 1245	5050 5050		7.6 87	72 22	F C	7.9 7.9	1500 1610	--	--	--	--	--	--	--	--	--	--	803		300A						
E2 E 811.9 232.9 PETALUMA RIVER AT LAKEVILLE																										
05/22/74 1050	5052 5050		10.0 102	61.9F 16.6C		7.8 7.6	10200 7640	--	--	--	--	--	--	--	--	--	--	4460		32A						
06/05/74 0735	5052 5050		7.6 82	67.3F 19.6C		7.7 7.4	10000 15100	--	--	--	--	--	--	--	--	--	--	9110		34A						
E2 E 812.3 234.2 PETALUMA RIVER, CUT R. AT SCHULTZ SLOUGH																										
05/22/74 1110	5052 5050		8.0 84	64.8F 18.2C		7.6 7.6	1900 3920	--	--	--	--	--	--	--	--	--	--	2210		39A						
06/05/74 0750	5052 5050		7.1 78	68.9F 20.5C		7.7 7.8	7000 10500	--	--	--	--	--	--	--	--	--	--	6170		95A						
E2 E 813.7 236.7 PETALUMA RIVER AT MCNEAR AT PETALUMA																										
10/19/73 0800	5050 5050		6.5 66	62 17	F C	7.8 7.7	37000 36700	--	--	--	--	--	--	--	--	--	--	25400		22A						
11/26/73 0945	5050 5050		6.1 53	48.5F 9.2C		7.1 7.2	1700 1920	--	--	--	--	--	--	--	--	--	--	1100		36A						
05/22/74 1125	5052 5050		9.1 97	65.5F 18.6C		7.5 7.5	1500 3470	--	--	--	--	--	--	--	1.6 .03	--	--	1910		37A						
06/05/74 0810	5052 5050		7.1 78	68.9F 20.5C		7.6 7.7	6100 9410	--	--	--	--	--	--	--	2.0 .03	--	--	5370		105A						
E2 E 814.1 238.1 PETALUMA RIVER AT D STREET IN PETALUMA																										
05/22/74 1145	5052 5050		8.9 95	65.5F 18.6C		7.5 7.5	1600 3460	--	--	--	--	--	--	--	--	--	--	1960		90A						
06/05/74 0818	5052 5050		8.7 95	69.1F 20.6C		7.7 8.1	5300 9070	--	--	--	--	--	--	--	--	--	--	5240		120A						
E2 E 814.7 238.3 PETALUMA RIVER AT WEST BAYRAN ST AT PETALUMA																										
10/19/73 0830	5050 5050		9.0 90	60 16	F C	7.6 7.7	34000 33300	--	--	--	--	--	--	--	--	--	--	23100		24A						
11/26/73 1015	5050 5050		6.8 58	47 8	F C	7.3 7.4	750 757	--	--	--	--	--	--	--	--	--	--	446		8A						
E2 5145.01 SAN ANTONIO CREEK ABOVE HIGHWAY 101																										
05/22/74 0940	5050 5050		7.7 76	50 15	F C	7.5 7.5	646 667	--	--	--	--	--	--	--	--	--	--	379		2A						
06/05/74 1113	5050 5050	.8	8.6 95	69 21	F C	7.7 7.9	662 686	--	--	--	--	--	--	--	--	--	--	384		2A						
E2 5157.01 ADORE CREEK AT LAKEVILLE ROAD																										
05/22/74 1015	5050 5050		10.5 106	61 16	F C	7.3 7.3	463 492	--	--	--	--	--	--	--	--	--	--	303		1A						
06/05/74 0900	5050 5050		12.6 151	77 25	F C	8.3 8.4	480 504	--	--	--	--	--	--	--	--	--	--	295		1A						
E2 5200.00 PETALUMA RIVER AT PETALUMA (AT CROWN ROAD)																										
05/22/74 0821	5050 5050		9.4 95	61 16	F C	8.1 8.1	855 890	--	--	--	--	--	--	--	--	--	--	514		3A						
06/05/74 1030	5050 5050	.6	7.5 85	71 22	F C	7.5 7.8	931 971	--	--	--	--	--	--	--	.6 .01	--	--	570		3A						
E2 5220.01 WILLOW BROOK AT STONY POINT ROAD																										
05/22/74 1045	5050 5050		12.1 128	65 18	F C	8.2 8.2	756 786	--	--	--	--	--	--	--	--	--	--	469		1A						
06/05/74 1000	5050 5050	.5	8.3 93	70 21	F C	8.0 8.0	825 867	--	--	--	--	--	--	--	--	--	--	503		1A						



TABLE D-2 (CONTINUED)  
MINERAL ANALYSES OF SURFACE WATER

DATE TIME	SAMPLER LAB	G.H. Q DEPTH	DO SAT	TEMP	FIELD LABORATORY PH EC	MINERAL CONSTITUENTS IN										MILLIGRAMS PER LITER MILLIEQUIVALENTS PER LITER PERCENT REACTANCE VALUE					MILLIGRAMS PER LITER				
						CA	MG	NA	K	CO3	HC03	SO4	CL	NO3		H	F	TDS SUM	TH NCH	TURB 5AR					
.....																									
E2 5230.01 PETALUMA RIVER AT OLD REDWOOD HIGHWAY NORTH																									
11/26/73	5050		8.3	47	F 7.2	675	--	--	--	--	--	--	--	--	--	--	--	444		6A					
1045	5050		71	8	C 7.3	715											--								
E2 5235.01 WILLOW BROOK AT ADOBE ROAD																									
05/22/74	5050		9.5	70	F 8.1	507	--	--	--	--	--	--	--	--	--	--	--	314		2A					
1110	5050		106	21	C	529											--								
06/05/74	5050		8.6	72	F 8.2	620	--	--	--	--	--	--	--	--	--	--	--	382		2A					
0930	5050		98	22	C 8.2	649											--								
E2 5261.01 LICHAU CREEK AT RAILROAD AVENUE																									
05/22/74	5050		13.0	69	F 8.2	615	--	--	--	--	--	--	--	--	--	--	--	382		2A					
1050	5050		144	21	C	641											--								
E2 6075.01 SONOMA CREEK AT HIGHWAY 121																									
05/29/74	5050		9.8	67	F 7.5	458	--	--	--	--	--	--	--	--	--	--	--	266		1A					
1210	5050	15E	106	19	C 7.8	447											--								
E2 6175.01 SONOMA CREEK AT LEVERONI ROAD																									
05/29/74	5050		11.5	66	F 8.1	333	--	--	--	--	--	--	--	--	--	--	--	218		1A					
0930	5050	8E	123	19	C 7.9	352											--								
E2 6200.00 SONOMA CREEK AT AGUA CALIENTE																									
05/22/74	5050	2.10	11.7	65	F 8.3	280	18	18	14	1.5	0	150	14	8.5	.0	.20	.1	180	121	2A					
1310	5050		124	18	C 7.6	285	.90	1.48	.61	.04	.00	2.46	.29	.24	.00		26.0	174	0	0.6					
							30	.49	.20	1		82	10	8											
05/29/74	5050	2.03	9.4	64	F 7.9	290	--	--	--	--	--	--	--	--	.7	--	--	199		1A					
1000	5050	19	99	18	C 7.8	300									.01	--	--								
09/12/74	5050	2.26	8.7	72	F 8.3	360	23	21	22	2.8	0	192	13	16	.5	.30	.2	238	145	0A					
1330	5050	35	100	22	C 8.2	373	1.15	1.73	.96	.07	.00	3.15	.27	.45	.01		6.8	200	0	0.8					
							29	.44	.25	2		81	7	12											
E2 6635.01 SONOMA CREEK AT HIGHWAY 12 BRIDGE																									
05/29/74	5050		9.3	61	F 7.8	375	--	--	--	--	--	--	--	--	--	--	--	235		1A					
1100	5050	2E	95	16	C 7.9	398											--								
E3 E 809.4 224.3 SONOMA CREEK AT HIGHWAY 37 (SEARS POINT ROAD)																									
05/29/74	5050		6.8	72	F 7.7	13800	--	--	--	--	--	--	--	--	--	--	--	8560		145A					
1400	5050		78	22	C 7.7	14700											--								
E3 1250.00 NAPA RIVER NEAR NAPA																									
10/12/73	5050	2.81	12.9	61	F 8.1	340	30	28	21	--	0	218	--	18	--	.30	--	241	194	0A					
1220	5050		130	16	C 8.2	454	1.50	2.38	.91	.00	3.57			.51		--			16	0.7					
							31	.50	.19																
12/12/73	5050	4.71	10.8	52	F 7.2	195	12	11	11	--	0	79	--	8.9	--	.10	--	125	79	16A					
1215	5050		98	11	C 7.6	202	.60	.98	.48	.00	1.29			.25		--			15	0.5					
							29	.48	.23																
02/19/74	5050		11.2	50	F 7.3	132	9.6	6.6	8.4	1.3	0	58	8.4	6.4	2.5	.20	--	102	51	140A					
1245	5050		99	10	C 7.0	134	.48	.54	.37	.03	.00	.95	.17	.18	.04	--		72	4	0.5					
							34	.38	.76	2		71	.13	.13	.3										
04/02/74	5050	8.75	10.7	56	F 7.2	164	12	11	7.7	--	0	78	--	4.4	--	.10	--	93	77	75A					
1330	5050		102	13	C 7.9	167	.60	.94	.33	.00	1.28			.12		--			13	0.4					
							32	.50	.18																
06/05/74	5050	2.55	11.2	78	F 8.2	360	20	20	18	--	0	183	--	12	--	--	--	232	151	1A					
1500	5050		136	26	C 7.8	374	1.30	1.72	.78	.00	3.00			.34		--			1	0.6					
							34	.45	.21																
07/18/74	5050		8.4	74	F 7.9	399	27	24	21	--	0	182	--	19	--	.50	--	264	169	1A					
1130	5050		100	24	C 8.2	419	1.35	2.03	.91	.00	2.98			.54		--			20	0.7					
							31	.47	.21																
09/04/74	5050	1.86	10.6	71	F 8.1	417	29	24	23	--	0	191	--	24	--	--	--	258	172	0A					
1130	5050		120	22	C 7.8	450	1.45	1.97	1.00	.00	3.13			.68		--			15	0.8					
							33	.45	.23																
E3 1500.00 NAPA RIVER NEAR ST HELENA																									
05/22/74	5050	0.97	8.6	63	F 7.3	280	22	6.4	18	1.9	0	96	16	14	3.2	.40	.3	180	82	2A					
1020	5050		19	89	C 7.1	279	1.10	.53	.78	.05	.00	1.57	.33	.39	.05		22.0	151	3	0.9					
							45	.22	.32	2		67	.14	.17	.2										
09/12/74	5050	0.67	5.6	66	F 7.3	390	29	14	27	2.6	0	147	17	34	8.6	1.00	.5	251	132	0A					
1045	5050		2.6	60	C 8.1	406	1.45	1.15	1.17	.07	.00	2.41	.35	.96	.14		36.0	241	10	1.0					
							38	.30	.30	2		62	.9	.25	.4										
E3 2100.51 GREEN VALLEY CREEK AT CORDELIA																									
11/19/73	5001		9.7	52	F 7.9	302	--	--	--	--	0	166	--	18	--	--	--			32AF					
1215	5050		88	11	C 8.1	283					.00	1.74		.51			34.0								
		2																							
12/18/73	5001		7.9	50	F 7.3	500	--	--	--	--	0	115	--	61	--	--	--			22AF					
0950	5050		70	10	C 8.2	505					.00	1.88		1.72			52.0								
		2																							

MINERAL ANALYSES OF SURFACE WATER

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TABLE D-2 (CONTINUED)  
MINERAL ANALYSES OF SURFACE WATER

DATE TIME	SAMPLER LAB	G.M. O DEPTH	NO SAT	TEMP	FIELD LABORATORY PH EC	MINERAL CONSTITUENTS IN						MILLIGRAMS PER LITER MILLIEQUIVALENTS PER LITER PERCENT REACTANCE VALUE				MILLIGRAMS PER LITER				
						CA	MG	NA	K	CO3	HCO3	SO4	CL	NO3	8	F	TDS SUM	TH NCH	TURB 5AR	
F8 2100.00 NAVARRO RIVER NEAR NAVARRO																				
11/16/73 0715	5050 5050	7570	11.4 107	54.5F 12.5C	7.3 7.0	100 107	9.9 .49 47	3.5 .29 28	5.5 .24 23	.9 .02 2	0 .00	50 .82 77	5.6 .12 11	3.9 .11 10	.9 .01 1	.00	--	76 55	40 0	600A 0.4
01/22/74 1230	5050 5050	6.59 1840	12.4 107	44.2F 9.0C	7.1 8.0	145 145	--	--	7.3 .32 22	--	0 .00	68 1.11	--	6.2 .17	--	.00	--		56	160A 0.4
03/06/74 1615	5050 5050	5.71 1420	11.5 104	51.8F 11.0C	7.2	154	--	--	--	--	--	--	--	--	--	--	--			58AF
05/16/74 0800	5050 5050	2.91 130	10.5 99	55.4F 13.0C	7.4 7.5		--	--	12 .52 21	--	0 .00	124 2.03	--	6.8 .19	--	.10	--		100	1A 0.5
07/11/74 0745	5050	2.78 110	8.0 81	60.8F 16.0C	7.8	265	--	--	--	--	--	--	--	--	--	--	--			1AF
09/06/74 0815	5050	2.10 8.0	7.3 77	64.4F 18.0C	7.2	276	--	--	--	--	--	--	--	--	--	--	--			126AF
F8 2720.00 BIG RIVER NEAR MENDOCINO																				
11/15/73 1625	5050 5050		11.8 112	55.4F 13.0C	7.4 7.3	119 122	11 .55 44	4.2 .35 28	7.8 .34 27	.5 .01 1	0 .00	58 .95 79	3.8 .08 7	5.8 .16 13	.7 .01 1	.10	--	92 62	45 0	18A 0.5
01/22/74 1345	5050 5050		12.2 104	47.3F 8.5C	7.0 8.0	112 116	--	--	6.4 .28 25	--	0 .00	52 .85	--	4.7 .13	--	.00	--		41	60A 0.4
03/06/74 1510	5050 5050		12.0 106	50.0F 10.0C	7.2	128	--	--	--	--	--	--	--	--	--	--	--			28AF
05/15/74 1430	5050 5050		10.4 106	61.7F 16.5C	7.2	174	--	--	--	--	--	--	--	--	--	--	--			1AF
07/11/74 0650	5050		8.6 88	61.7F 16.5C	7.2	196	--	--	--	--	--	--	--	--	--	--	--			1AF
09/05/74 1350	5050		9.0 99	68.0F 20.0C	7.2	204	--	--	--	--	--	--	--	--	--	--	--			1AF
F8 3100.00 NOYO RIVER NEAR FORT BRAGG																				
11/15/73 1515	5050 5050		11.1 103	53.6F 12.0C	7.6 7.5	95 98	8.2 .41 41	2.8 .23 23	7.6 .33 33	1.0 .03 3	0 .00	40 .66 58	6.6 .14 14	6.2 .17 18	.0 .00	.10	--	98 52	32 0	10A 0.6
03/06/74 1410	5050 5050		12.1 107	50.0F 10.0C	7.0	92	--	--	--	--	--	--	--	--	--	--	--			15AF
05/15/74 1330	5050 5050		10.8 103	56.3F 13.5C	7.2 7.0		--	--	9.2 .40 35	--	0 .00	47 .77	--	7.3 .21	--	.00	--		37	2A 0.7
07/10/74 1410	5050 5050		9.4 96	61.7F 16.5C	7.1 7.9	135 131	--	--	8.2 .26 30	--	0 .00	52 .85	--	9.1 .26	--	.10	--		42	0A 0.6
09/05/74 1245	5050		9.1 94	62.6F 17.0C	7.0	143	--	--	--	--	--	--	--	--	--	--	--			1AF
F9 1100.00 RUSSIAN RIVER NEAR GUERNEVILLE																				
10/12/73 1000		5.27 334	8.6 88	62 F 17 C	7.3	210	--	--	--	--	--	--	--	--	--	--	--			
11/09/73 1200	5050 5050	8.77 2080	8.8 86	58 F 14 C	7.4 7.6	218 220	16 .80 36	11 .92 41	12 .52 23	--	0 .00	89 1.46	--	11 .31	--	.20	--	123	86 13	50A 0.6
12/12/73 1540		9.79 2880	10.3 93	52 F 11 C	7.3	240	--	--	--	--	--	--	--	--	--	--	--			
01/22/74 1000	5050 5050	17.30 12800	10.4 90	48 F 9 C	7.2 7.7	172 186	16 .80 45	8.0 .66 37	6.6 .29 16	1.6 .04 2	0 .00	90 1.48 84	8.6 .18 10	2.0 .06 3	2.4 .04 2	.10	--	104 90	73 0	150A 0.3
02/19/74 1030	5050 5050	15.56 9760	10.7 93	40 F 9 C	7.3 7.1	145 152	13 .65 39	8.1 .67 41	7.6 .33 20	--	0 .00	74 1.21	--	3.6 .10	--	.10	--	101	66 6	310A 0.4
03/19/74 0930		10.35 3380	9.8 95	57 F 14 C	7.3	228	--	--	--	--	--	--	--	--	--	--	--			
04/02/74 1145	5050 5050	26.14 30300	10.1 94	54 F 12 C	7.2 7.9	130 130	11 .55 36	8.9 .73 48	5.3 .23 15	--	0 .00	67 1.10	--	3.4 .10	--	.00	--	63	64 9	260A 0.3
05/10/74 1045		7.72 1490	9.6 99	63 F 17 C	7.5	254	--	--	--	--	--	--	--	--	--	--	--			
06/05/74 1300	5050 5050	5.89 395	8.2 94	72 F 22 C	7.8 8.0	293 298	28 1.40 45	14 1.20 38	12 .52 17	--	0 .00	151 2.47	--	7.4 .21	--	--	--	178	130 7	8A 0.5

TABLE D-2 (CONTINUED)  
MINERAL ANALYSES OF SURFACE WATER

DATE TIME	SAMPLE LAB	G.M. Q DEPTH	DO SAT	TEMP	FIELD LABORATORY		MINERAL CONSTITUENTS IN								MILLIGRAMS PER LITER MILLIEQUIVALENTS PER LITER					MILLIGRAMS PER LITER				
					PH	EC	CA	MG	NA	K	CO3	PERCENT REACTANCE VALUE	HC03	SO4	CL	NO3	0	F	TDS SUM	TH NCH	TURB SAR			
. . . . .																								
F9		1100.00	RUSSIAN RIVER NEAR GUERNEVILLE										CONTINUED											
07/18/74 1330		5.17 304	10.7 132	86 27	F 8.3 C	27A	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--			
08/06/74 1320		5.15 206	9.4 113	77 25	F 8.2 C	256	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--			
09/04/74 1330	5050 5050	5.32 276	9.6 113	74 24	F 8.1 C 8.3	237 245	23 1.15 45	12 .99 39	9.5 .41 16	--	0 .00	132 2.16	--	6.7 .19	--	--	--	--	--	140 0	107 0	1A 0.4		
F9		1500.00	RUSSIAN RIVER NEAR HEALDSBURG																					
05/22/74 0800	5050 5050	2.52 772	9.2 96	64 18	F 7.3 C 7.7	260 273	20 1.30 46	14 1.15 40	8.4 .37 13	1.0 .03 1	0 .00	143 2.34 85	13 .27 10	4.0 .11 4	2.2 .04 1	.30 11.0	.1 11.0			154 150	120 6	6A 0.3		
09/12/74 0915	5050 5050	2.13 307	7.0 76	68 20	F 7.9 C 8.1	240 233	24 1.20 49	11 .90 37	6.8 .30 12	1.1 .03 1	0 .00	120 2.10 86	11 .23 10	1.9 .05 2	.8 .01	.30 13.0	.1 13.0			133 133	106 0	4A 0.3		
F9		1600.00	BIG SULPHUR CREEK NEAR CLOVERDALE																					
05/21/74 1115	5050 5050		9.2 97	64 18	F 8.3 C 8.3	320 344	31 1.55 42	21 1.73 47	8.1 .35 10	.9 .02 1	0 .00	178 2.92 79	29 .60 16	2.7 .08 2	5.5 .09 2	.30 18.0	.2 18.0			196 204	164 18	1A 0.3		
09/11/74 0845	5050 5050		8.3 92	68 20	F 8.1 C 8.2	410 424	34 1.70 38	27 2.22 50	12 .52 12	1.3 .03 1	0 .00	184 3.02 68	61 1.27 29	1.0 .03 1	5.9 .10 2	.90 21.0	.2 21.0			247 255	198 45	0A 0.4		
F9		1600.00	RUSSIAN RIVER NEAR CLOVERDALE																					
05/21/74 0945	5050 5050	3.71 404	9.6 96	59 14	F 7.7 C 7.9	205 205	20 1.00 46	10 .82 38	7.5 .33 15	1.0 .03 1	0 .00	112 1.84 83	12 .25 11	3.4 .10 5	1.9 .03 1	.20 12.0	.1 12.0			114 123	92 0	20A 0.3		
09/11/74 0700	5050 5050	3.29 287	8.1 88	66 19	F 7.7 C 8.1	190 185	15 .75 39	11 .90 47	5.9 .26 13	.8 .02 1	0 .00	98 1.61 87	9.2 .19 10	1.0 .03 2	1.3 .02 1	.20 12.0	.2 12.0			111 105	84 2	4A 0.3		
F9		1765.00	RUSSIAN RIVER NEAR HOPLAND																					
05/21/74 0745	5050 5050	5.93 465	9.6 89	54 12	F 7.3 C 7.2	190 188	18 .90 46	9.0 .74 38	6.8 .30 15	1.2 .03 2	0 .00	98 1.61 82	13 .27 14	2.3 .06 3	1.7 .03 2	.20 12.0	.1 12.0			103 112	82 2	26A 0.3		
09/10/74 1515	5050 5050	5.74 327	8.7 96	69 21	F 7.7 C 8.2	176 175	15 .75 41	9.6 .79 43	5.9 .26 14	.8 .02 1	0 .00	93 1.52 85	9.2 .19 11	1.9 .05 3	1.0 .02 1	.20 12.0	.1 12.0			105 101	77 1	1A 0.3		
F9		4200.00	RUSSIAN RIVER, EAST FORK, NEAR CAPELLA																					
05/20/74 1330	5050 5050	7.00 350	9.6 96	58 14	F 7.8 C 7.8	158 155	10 .80 48	7.3 .60 36	5.1 .22 13	1.5 .04 2	0 .00	85 1.39 83	11 .23 14	1.6 .05 3	.4 .01 1	.20 11.0	.1 11.0			92 96	70 1	45A 0.3		
09/10/74 1230	5050 5050	6.73 278	8.4 94	68 20	F 8.1 C 8.0	165 165	10 .80 46	8.5 .70 40	4.6 .20 12	1.0 .03 2	0 .00	89 1.46 90	7.4 .15 9	.5 .01 1	.7 .01 1	.20 12.0	.1 12.0			99 95	75 2	8A 0.2		
F9		4900.00	RUSSIAN RIVER, EF, AT POTTER VALLEY POWERHOUSE																					
05/20/74 1130	5050 5050	3.50 303	9.6 89	54 12	F 7.7 C 7.7	137 131	16 .80 50	4.9 .40 28	4.2 .18 13	2.3 .06 4	0 .00	72 1.18 83	9.4 .20 14	1.3 .04 3	.0 .00	.20 10.0	.0 10.0			72 84	60 1	56A 0.2		
09/10/74 1100	5050	3.45 296	8.5 89	64 18	F 7.9 C 8.2	158 151	10 .80 50	7.3 .60 38	4.2 .18 11	.8 .02 1	0 .00	84 1.38 90	6.9 .14 9	.0 .00 1	.5 .01 1	.20 11.0	.0 11.0			96 88	70 1	3A 0.2		



TABLE D-3

MINOR ELEMENT ANALYSIS OF SURFACE WATER

Sampler and Lab Agency Codes

5001 - U. S. Bureau of Reclamation  
5050 - Department of Water Resources

Abbreviations

TIME - Pacific Standard Time on a 24-hour clock  
DISCH - Instantaneous discharge in cubic feet per second  
EC - Electrical conductance in micromhos at 25° Celsius  
TEMP - Water temperature at time of sampling in degrees Fahrenheit (F) and Celsius (C)  
PH - Measure of acidity (<7) or alkalinity (>7) of water  
CHROM (ALL) - All chromium  
CHROM (HEX) - Hexavalent chromium  
D - Dissolved  
T - Total

TABLE D-3 (CONTINUED)  
MINOR ELEMENT ANALYSIS OF SURFACE WATER

DATE TIME	SAMP LAB	DEPTH	DISCH EC	TEMP PH	ARSENIC	BARIUM CADMIUM	CHROM (ALL) CHROM (MEX)	COPPER IRON	LEAD MANGANESE	MERCURY SELENIUM	SILVER ZINC
D2 1011.50 SALINAS RECLAMATION CANAL AT PRESTON STREET											
05/07/74 1120	5050 5050				0.00 D	-- 0.00 T	-- --	-- --	0.01 T --	0.0001 T --	-- --
D2 1110.50 SALINAS RIVER AT TWIN BRIDGES											
10/31/73 0815	5050 5050		690	59.5F 7.8	0.00 D	-- 0.00 D	0.01 D --	0.00 D 0.08 D	0.00 D --	0.0000 T --	-- 0.00 D
D2 1110.70 SALINAS RIVER 1.9 MILES ABOVE HIGHWAY 1 BRIDGE											
10/31/73 0800	5050 5050		650	58.5F 7.6	0.00 D	-- 0.00 D	0.00 D --	0.00 D 0.08 D	0.00 D --	0.0000 T --	-- 0.01 D
D2 1120.50 SALINAS RIVER AT BLANCO DRAIN											
10/31/73 0800	5050 5050			57.0F 7.3	0.00 D	-- 0.00 D	0.01 D --	0.00 D 0.08 D	0.00 D --	0.0000 T --	-- 0.01 D
D2 1150.30 SALINAS RIVER AT BLANCO ROAD											
10/31/73 0815	5050 5050		650	57.0F 7.4	0.00 D	-- 0.00 D	0.01 D --	0.01 D 0.10 D	0.00 D --	0.0000 T --	-- 0.01 D
D2 1160.20 SALINAS RIVER AT DAVIS ROAD											
10/31/73 0830	5050 5050		500	58.0F 7.7	0.00 D	-- 0.00 D	0.01 D --	0.00 D 0.04 D	0.00 D --	0.0000 T --	-- 0.01 D
D2 1255.50 ALISAL CREEK AT OLD STAGE ROAD											
05/07/74 1040	5050 5050				0.01 D	-- 0.00 T	-- --	-- --	0.01 T --	0.0000 T --	-- --
D2 1261.50 GABILAN CREEK AT NATIVIDAD BRIDGE CROSSING											
05/07/74 1010	5050 5050				0.00 D	-- 0.01 T	-- --	-- --	0.01 T --	0.0001 T --	-- --
D2 1264.50 NATIVIDAD CREEK AT EAST LAUREL DRIVE											
05/07/74 1115	5050 5050				0.01 D	-- 0.00 T	-- --	-- --	0.01 T --	0.0000 T --	-- --
D2 1266.50 NATIVIDAD DRAINAGE AT OLD STAGE ROAD											
05/07/74 1035	5050 5050				0.00 D	-- 0.00 T	-- --	-- --	0.01 T --	0.0000 T --	-- --
D4 1052.50 CARMEL RIVER AT SAN CARLOS BRIDGE											
05/31/74 1700	5050 5050				--	--	--	--	--	0.0001 T	--
D4 1060.50 CARMEL RIVER AT END OF POPLAR ROAD											
05/31/74 1645	5050 5050				--	--	--	--	--	0.0001 T	--
E0 B 802.7 207.0 SUISUN BAY OFF BULLS HEAD POINT NEAR MARTINEZ											
02/15/74 1015	5001 5050	3	3650	10 C 7.7	0.01 D	-- 0.00 D	-- --	0.01 D 0.02 D	0.00 D 0.00 D	-- --	-- --
02/15/74 1016	5001 5050	3	3650	10 C 7.7	0.03 T	-- 0.00 T	-- --	0.01 T 1.4 T	0.00 T 0.01 T	0.0000 T --	-- --
05/01/74 1115	5001 5050	3	9130	16 C 7.6	0.00 D	-- 0.00 D	-- --	0.00 D 0.01 D	0.00 D 0.00 D	-- --	-- --
05/01/74 1116	5001 5050	3	9130	16 C 7.6	0.00 T	-- 0.00 T	0.02 T --	0.01 T 1.4 T	0.00 T 0.00 T	0.0003 T --	-- --
09/11/74 1245	5001 5050	3	10600	21 C 8.0	0.00 D	-- 0.00 D	0.00 D --	0.01 D 0.01 D	0.00 D 0.00 D	-- --	0.01 D
09/11/74 1246	5001 5050	3	10600	21 C 8.0	0.01 T	-- 0.00 T	0.00 T --	0.00 T 0.91 T	0.0 T 0.05 T	-- --	-- 0.00 T
E0 B 802.8 155.0 SACRAMENTO RIVER AT CHIPPS ISLAND											
02/15/74 1115	5001 5050	3	165	9 C 7.6	0.00 D	-- 0.00 D	-- --	0.01 D 0.05 D	0.00 D 0.00 D	-- --	-- --
02/15/74 1116	5001 5050	3	165	9 C 7.6	0.00 T	-- 0.00 T	0.01 T --	0.01 T 2.2 T	0.00 T 0.05 T	0.0000 T --	-- --
05/01/74 1245	5001 5050	3	171	16 C 7.6	0.00 D	-- 0.00 D	0.00 --	0.00 D 0.05 D	0.00 D 0.00 D	-- --	-- --
05/01/74 1246	5001 5050	3	171	16 C 7.6	0.00 T	-- 0.00 T	0.00 --	0.01 T 1.6 T	0.00 T 0.04 T	0.0000 T --	-- --
09/11/74 1405	5001 5050	3	336	22 C 8.0	0.00 D	-- 0.00 D	0.00 D --	0.01 D 0.03 D	0.00 D 0.00 D	-- --	-- 0.02 D
09/11/74 1406	5001 5050	3	336	22 C 8.0	0.00 T	-- 0.00 T	0.01 T --	0.01 T 1.9 T	0.00 T 0.04 T	0.0001 T --	-- 0.01 T
E0 B 803.5 217.0 SAN PABLO BAY NEAR RODEO											
02/15/74 1025	5001 5050	3	12600	10 C 7.6	0.00 D	-- 0.00 D	-- --	0.00 D 0.02 D	0.00 D 0.00 D	-- --	-- --
02/15/74 1026	5001 5050	3	12600	10 C 7.6	0.01 T	-- 0.00 T	-- --	0.01 T 0.43 T	0.00 T 0.09 T	0.0000 T --	-- --



TABLE D-3 (CONTINUED)  
MINOR ELEMENT ANALYSIS OF SURFACE WATER

DATE TIME	SAMP LAB	DEPTH	DISCH EC	TEMP PH	ARSENIC	CONSTITUENTS BARIUM CADMIUM	IN MILLIGRAMS CHROM (ALL) CHROM (HEX)	PER LITER COPPER IRON	LEAD MANGANESE	MERCURY SELENIUM	SILVER ZINC
E0 8 804.0 203.0 SUISUN BAY NEAR PRESTON POINT											
02/15/74 1045	5001 5050	3	385	9 C 7.7	0.00 D	-- 0.00 D	-- 0.01 T	0.01 D 0.05 D	0.00 D 0.00 D	-- --	-- --
02/15/74 1046	5001 5050	3	385	9 C 7.7	0.00 T	-- 0.00 T	0.01 T 2.2 T	0.01 T 0.04 T	0.00 T 0.00 T	0.0000 T --	-- --
05/01/74 1140	5001 5050	3	1350	16 C 7.7	0.00 D	-- 0.00 D	-- 0.00 D	0.00 D 0.02 D	0.00 D 0.00 D	-- --	-- --
05/01/74 1141	5001 5050	3	1350	16 C 7.7	0.00 T	-- 0.00 T	0.03 3.2 T	0.01 T 0.02 T	0.00 T 0.00 T	0.0000 T --	-- --
09/11/74 1315	5001 5050	3	2250	22 C 7.9	0.00 D	-- 0.00 D	0.00 D 0.01 D	0.01 D 0.00 D	0.00 D 0.00 D	-- --	0.01 D
09/11/74 1316	5001 5050	3	2250	22 C 7.9	0.01 T	-- 0.00 T	0.01 T 3.0 T	0.00 T 0.08 T	0.0 T 0.00 T	0.0000 T --	-- 0.01 T
E0 8 807.0 202.3 GRIZZLY BAY AT DOLPHIN NEAR SUISUN SLOUGH											
02/14/74 1105	5001 5050	3	239	9 C 7.6	0.00 D	-- 0.00 D	-- 0.01 T	0.01 D 0.08 D	0.00 D 0.00 D	-- --	-- 0.00 D
02/14/74 1106	5001 5050	3	239	9 C 7.6	0.00 T	-- 0.00 T	0.02 T 3.0 T	0.01 T 0.07 T	0.00 T 0.00 T	0.0000 T --	-- 0.02 T
04/30/74 0930	5001 5050	3	175	16 C 7.7	0.00 D	-- 0.00 D	0.00 0.05 D	0.01 D 0.00 D	0.00 D 0.00 D	-- --	-- 0.01 D
04/30/74 0931	5001 5050	3	175	16 C 7.7	0.00 T	-- 0.00 T	0.00 T 2.6 T	0.01 T 0.04 T	0.00 T 0.00 T	0.0002 T --	-- 0.01 T
09/12/74 1205	5001 5050	3	2410	22 C 7.9	0.00 D	-- 0.00 D	0.00 D 0.01 D	0.00 D 0.00 D	0.00 D 0.00 D	-- --	-- 0.00 D
09/12/74 1206	5001 5050	3	2410	22 C 7.9	0.00 T	-- 0.00 T	0.01 T 4.7 T	0.01 T 0.18 T	0.0 T 0.00 T	0.0000 T --	-- 0.05 T
E0 5 810.8 202.8 SUISUN SLOUGH AT VOLANTI SLOUGH ON JOICE ISLAND											
02/14/74 0805	5001 5050	3	1370	9 C 7.4	0.00 D	-- 0.00 D	-- 0.29 D	0.01 D 0.00 D	0.01 D 0.00 D	-- --	-- 0.00 D
02/14/74 0806	5001 5050	3	1370	9 C 7.4	0.00 T	-- 0.00 T	-- 5.0 T	0.02 T 0.05 T	0.01 T 0.05 T	0.0000 T --	-- 0.04 T
F8 2100.00 NAVARRO RIVER NEAR NAVARRO											
05/16/74 0800	5050 5050			13.0C 7.4	--	-- 0.00 T	-- 0.05 T	0.00 T 0.02 T	0.00 T 0.00 T	-- --	-- 0.01 T
F8 3100.00 NDYO RIVER NEAR FORT BRAGG											
05/15/74 1330	5050 5050			13.5C 7.2	--	-- 0.00 T	-- 0.06 T	0.00 T 0.01 T	0.00 T 0.01 T	-- --	-- 0.00 T

TABLE D-4

## MISCELLANEOUS CONSTITUENTS IN SURFACE WATER

Sampler and Lab Agency Codes

5001 - U. S. Bureau of Reclamation  
 5050 - Department of Water Resources  
 5052 - San Francisco Bay Regional Water Quality Control Board

Abbreviations and Constituents

TIME - Pacific Standard Time on a 24-hour clock  
 TEMP - Water temperature at time of sampling in degrees Fahrenheit (F) or Celsius (C)  
 EC - Electrical conductance in micromhos at 25° Celsius  
 DO - Dissolved oxygen content in milligrams per liter  
 G.H. - Instantaneous gage height in feet above an established datum  
 PH - Measure of acidity (<7) or alkalinity (>7) of water: F - Field; L - Lab  
 DISCH - Instantaneous discharge in cubic feet per second  
 MBAS - Methylene blue active substance (a test for detergent surfactants) in milligrams per liter: L - Linear alkylate sulfonate; A - Alkyl benzene sulfonate  
 DEPTH - Depth in feet at which sample was collected  
 TURB - Jackson Turbidity Units  
 T+L - Tannin and lignin as tannic acid in milligrams per liter  
 CHLOR - Field determination of residual chlorine in milligrams per liter  
 O+G - Oil and grease in milligrams per liter  
 COLOR - True color in color units  
 SET S - Settleable solids in milliliters per liter (ML/L) and milligrams per liter (MG/L): F - Field; L - Lab  
 BOD - Biochemical oxygen demand in milligrams per liter: A - 4 days; B - 5 days; C - 6 days; D - 7 days; E - 100 days; F - other  
 SUS S - Suspended solids in milligrams per liter: 5 - at 105°C; 8 - at 180°C  
 COD - Chemical oxygen demand in milligrams per liter  
 V SUS S - Volatile suspended solids in milligrams per liter  
 CYANIDE - Cyanide in milligrams per liter  
 PHENOLS - Phenols in milligrams per liter  
 TOC - Total organic carbon in milligrams per liter  
 DOC - Dissolved organic carbon in milligrams per liter  
 IODIDE - Iodide in milligrams per liter  
 T ODOR - Threshold odor number at 60°C  
 BROMIDE - Bromide in milligrams per liter  
 SULFITE - Sulfite in milligrams per liter  
 T SULF - Total sulfides in milligrams per liter  
 D SULF - Dissolved sulfides in milligrams per liter  
 CC EXT - Carbon chloroform extract  
 CA EXT - Carbon alcohol extract



TABLE D-4 (CONTINUED)  
MISCELLANEOUS CONSTITUENTS IN SURFACE WATER

DATE TIME	SAMP LAR	TEMP EC	DO G.M.	F-PH L-PH	DISCH MBAS	DEPTH TURB	T+L CHLOR	0+6 COLOR	ML/L MG/L	SET S	BOD SUS S	COD SUS S	CYANIDE PHENOLS	TOC DOC	IODIDE T QUOR	BROMIDE SULFITE	T SULF D SULF	CC EAT CA EXT
		DO																
		1100.00																
04/10/74	5050	54 F	10.0	7.3														
1500	5050	259			0.0	A					29	5						
09/19/74	5050	62 F	9.0	7.2														
1530	5050	300			0.0	A					4	5						
		DO																
		1180.01																
04/10/74	5050	54 F	10.5	7.5														
1420	5050	295			0.0	A					36	5						
09/19/74	5050	65 F	13.0	7.8														
1430	5050	360			0.0	A					7	5						
		DO																
		1220.01																
04/10/74	5050	52 F	11.0	7.4														
1330	5050	380			0.0	A					34	5						
09/19/74	5050	62 F	11.5	7.6														
1315	5050	390			0.0	A					7	5						
		DO																
		1498.01																
04/10/74	5050	50 F	11.5	7.5														
1230	5050	308			0.0	A					16	5						
09/19/74	5050	72 F	11.5	7.6														
1200	5050	410			0.0	A					12	5						
		DO																
		2020.00																
04/10/74	5050	52 F	10.5	7.8														
1610	5050	405			0.0	A					56	5						
09/19/74	5050	60 F	4.0	7.6														
1635	5050	660			0.0	A					20	5	50					
		DO																
		3100.00																
04/10/74	5050	56 F	10.5	7.6														
1540	5050	480	3.48		0.0	A					33	5						
09/19/74	5050	66 F	11.0	8.0														
1605	5050	750	2.40		0.0	A					36	5						
		DO																
		4010.01																
04/10/74	5050	51 F	10.5	7.0														
1030	5050	295			0.0	A					169	5						
09/19/74	5050	66 F	7.0	7.2														
1035	5050	395			0.0	A					2	5						
		DO																
		1011.50																
05/07/74	5050																	
1120	5050				0.0	A												
		DO																
		1110.50																
10/31/73	5050	59.5F	9.8	7.8							4.2	8	12					
0815	5050	690																
		DO																
		1110.70																
10/31/73	5050	58.5F	9.0	7.6							4.3	8	11					
0800	5050	650																
		DO																
		1120.50																
10/31/73	5050	57.0F	2.5	7.3							4.8	8	12					
0800	5050																	
		DO																
		1150.30																
10/31/73	5050	57.0F	5.6	7.4							11	8	12					
0815	5050	650																
		DO																
		1160.20																
10/31/73	5050	58.0F	9.0	7.7							2.4	8	12					
0830	5050	500																
		DO																
		1255.50																
05/07/74	5050																	
1040	5050				0.0	A												
		DO																
		1261.50																
05/07/74	5050																	
1010	5050				0.0	A												
		DO																
		1264.50																
05/07/74	5050																	
1115	5050				0.0	A												
		DO																
		1266.50																
05/07/74	5050																	
1035	5050				0.0	A												

TABLE D-4 (CONTINUED)  
MISCELLANEOUS CONSTITUENTS IN SURFACE WATER

DATE TIME	SAMP LAB	TEMP EC	DO G.H.	F-PH L-PH	DISCH MBAS	DEPTH TURB	T-L CHLOR	0-6 COLOR	SET S ML/L MG/L	BOD SUS S	COD V SUS S	CYANIDE PHENOLS	TOC DOC	IOOIOE T OOR	BROWIDE SULFITE	T SULF D SULF	CC EXT CA EXT
E0 B 735.0 215.0 SAN FRANCISCO BAY AT SAN MATEO BRIDGE (SHIP CHANNEL)																	
10/15/73	5050	64 F	7.3	7.9	--	--	--	--	--	8 5	--	--	--	--	--	--	--
0920	5050	47000			--	--	--	--	--	--	--	--	--	--	--	--	--
11/13/73	5050	59 F	8.2	8.0	--	--	--	--	--	12 5	--	--	--	--	--	--	--
1040	5050	46000			--	--	--	--	--	--	--	--	--	--	--	--	--
12/17/73	5050	53 F	8.6	7.9	--	--	--	--	--	27 5	--	--	--	--	--	--	--
1420	5050	33000			--	--	--	--	--	--	--	--	--	--	--	--	--
01/14/74	5050	49 F	8.7	7.7	--	--	--	--	--	25 5	--	--	--	--	--	--	--
1200	5050	30500			--	--	--	--	--	--	--	--	--	--	--	--	--
02/27/74	5050	54 F	10.0	8.0	--	--	--	--	--	28 5	--	--	--	--	--	--	--
1125	5050	29000			--	--	--	--	--	--	--	--	--	--	--	--	--
03/27/74	5050	57 F	8.9	8.0	--	--	--	--	--	17 5	--	--	--	--	--	--	--
1020	5050	30500			--	--	--	--	--	--	--	--	--	--	--	--	--
04/24/74	5050	58 F	9.2	8.1	--	--	--	--	--	26 5	--	--	--	--	--	--	--
1015	5050	26200			--	--	--	--	--	--	--	--	--	--	--	--	--
05/23/74	5050	61 F	7.8	7.9	--	--	--	--	--	10 5	--	--	--	--	--	--	--
0915	5050	31800			--	--	--	--	--	--	--	--	--	--	--	--	--
06/20/74	5050	68 F	6.3	7.9	--	--	--	--	--	12 5	--	--	--	--	--	--	--
0745	5050	35500			--	--	--	--	--	--	--	--	--	--	--	--	--
07/19/74	5050	64 F	6.8	8.0	--	--	--	--	--	13 5	--	--	--	--	--	--	--
0745	5050	37200			--	--	--	--	--	--	--	--	--	--	--	--	--
08/20/74	5050	70 F	6.4	8.0	--	--	--	--	--	16 5	--	--	--	--	--	--	--
0935	5050	39500			--	--	--	--	--	--	--	--	--	--	--	--	--
09/17/74	5050	67 F	6.6	8.1	--	--	--	--	--	8 5	--	--	--	--	--	--	--
0900	5050	42100			--	--	--	--	--	--	--	--	--	--	--	--	--
E0 B 736.2 212.0 SAN FRANCISCO BAY AT SAN MATEO BRIDGE (PIER 662)																	
10/15/73	5050	63 F	5.8	7.9	--	--	--	--	--	11 5	--	--	--	--	--	--	--
1000	5050	47000			--	--	--	--	--	--	--	--	--	--	--	--	--
11/13/73	5050	58 F	7.7	7.9	--	--	--	--	--	--	--	--	--	--	--	--	--
1120	5050	46000			--	--	--	--	--	--	--	--	--	--	--	--	--
12/17/73	5050	53 F	9.0	7.9	--	--	--	--	--	22 5	--	--	--	--	--	--	--
1445	5050	33000			--	--	--	--	--	--	--	--	--	--	--	--	--
01/14/74	5050	49 F	8.9	7.7	--	--	--	--	--	22 5	--	--	--	--	--	--	--
1230	5050	30500			--	--	--	--	--	--	--	--	--	--	--	--	--
02/27/74	5050	54 F	10.9	8.0	--	--	--	--	--	36 5	--	--	--	--	--	--	--
1220	5050	28500			--	--	--	--	--	--	--	--	--	--	--	--	--
03/27/74	5050	57 F	8.4	8.0	--	--	--	--	--	18 5	--	--	--	--	--	--	--
1100	5050	30500			--	--	--	--	--	--	--	--	--	--	--	--	--
04/24/74	5050	58 F	9.8	8.1	--	--	--	--	--	17 5	--	--	--	--	--	--	--
1100	5050	25200			--	--	--	--	--	--	--	--	--	--	--	--	--
05/23/74	5050	62 F	12.4	8.2	--	--	--	--	--	10 5	--	--	--	--	--	--	--
1000	5050	33000			--	--	--	--	--	--	--	--	--	--	--	--	--
06/20/74	5050	68 F	7.4	8.0	--	--	--	--	--	19 5	--	--	--	--	--	--	--
0845	5050	35800			--	--	--	--	--	--	--	--	--	--	--	--	--
07/19/74	5050	68 F	6.5	8.0	--	--	--	--	--	45 5	--	--	--	--	--	--	--
0830	5050	38400			--	--	--	--	--	--	--	--	--	--	--	--	--
08/20/74	5050	70 F	6.3	8.0	--	--	--	--	--	108 5	--	--	--	--	--	--	--
1030	5050	39700			--	--	--	--	--	--	--	--	--	--	--	--	--
09/17/74	5050	68 F	5.4	8.0	--	--	--	--	--	39 5	--	--	--	--	--	--	--
0940	5050	41300			--	--	--	--	--	--	--	--	--	--	--	--	--
E0 B 749.2 222.4 SAN FRANCISCO BAY AT TREASURE ISLAND																	
10/15/73	5050	60 F	7.1	8.0	--	--	--	--	--	8 5	--	--	--	--	--	--	--
0800	5050	45000			--	--	--	--	--	--	--	--	--	--	--	--	--
11/13/73	5050	57 F	7.8	7.9	--	--	--	--	--	72 5	--	--	--	--	--	--	--
0915	5050	46000			--	--	--	--	--	--	--	--	--	--	--	--	--
12/17/73	5050	52 F	8.8	7.9	--	--	--	--	--	24 5	--	--	--	--	--	--	--
1245	5050	32000			--	--	--	--	--	--	--	--	--	--	--	--	--
01/14/74	5050	49 F	9.2	7.8	--	--	--	--	--	21 5	--	--	--	--	--	--	--
1045	5050	29000			--	--	--	--	--	--	--	--	--	--	--	--	--
02/27/74	5050	52 F	9.0	8.0	--	--	--	--	--	8 5	--	--	--	--	--	--	--
1000	5050	34000			--	--	--	--	--	--	--	--	--	--	--	--	--
03/27/74	5050	54 F	9.0	8.0	--	--	--	--	--	9 5	--	--	--	--	--	--	--
0900	5050	33100			--	--	--	--	--	--	--	--	--	--	--	--	--
04/24/74	5050	54.5F	8.1	7.9	--	--	--	--	--	23 5	--	--	--	--	--	--	--
0830	5050	33500			--	--	--	--	--	--	--	--	--	--	--	--	--
05/23/74	5050	58 F	7.7	7.9	--	--	--	--	--	26 5	--	--	--	--	--	--	--
0745	5050	36000			--	--	--	--	--	--	--	--	--	--	--	--	--
06/20/74	5050	61 F	7.4	8.0	--	--	--	--	--	17 5	--	--	--	--	--	--	--
0625	5050	37300			--	--	--	--	--	--	--	--	--	--	--	--	--
07/19/74	5050	64 F	6.7	8.0	--	--	--	--	--	10 5	--	--	--	--	--	--	--
0630	5050	40500			--	--	--	--	--	--	--	--	--	--	--	--	--
08/20/74	5050	65 F	6.4	8.0	--	--	--	--	--	9 5	--	--	--	--	--	--	--
0810	5050	43000			--	--	--	--	--	--	--	--	--	--	--	--	--
09/17/74	5050	63 F	6.7	8.0	--	--	--	--	--	6 5	--	--	--	--	--	--	--
0720	5050	40700			--	--	--	--	--	--	--	--	--	--	--	--	--



TABLE D-4 (CONTINUED)  
MISCELLANEOUS CONSTITUENTS IN SURFACE WATER

DATE TIME	SAMP LAB	TEMP EC	DO G.H.	F-PH L-PH	DISCH MBAS	DEPTH TURB	T-L CHLOR	SET S O-G COLOR	ML/L MG/L	BOD SUS S	COD V SUS S	CYANIDE PHENOLS	TOC DOC	IODIDE T ODOOR	BROMIDE SULFITE	T SULF D SULF	CC EXT CA EXT
E0 B 801.8 222.3 SAN PABLO BAY NEAR PINOLE POINT																	
10/03/73 0905	5001 5050	18.0C 33550	7.3	7.9 7.8	--	3	--	--	--	-- 6	-- 5	-- 4	--	--	--	--	--
12/05/73 1105	5001 5050	11.0C 14900	9.4	7.2 7.6	--	3	--	--	--	12	5	2	--	--	--	--	--
12/05/73 1106	5001 5050	29100	--	--	--	20	--	--	--	10	5	2	--	--	--	--	--
12/05/73 1107	5001 5050	32500	--	--	--	41	--	--	--	21	5	4	--	--	--	--	--
E0 B 802.3 207.1 SUISUN BAY OFF BULLS HEAD POINT																	
03/20/74 1210	5001 5050	13.0C 5535	11.2	8.0	--	3	--	--	--	1.1 B 35	-- 5	-- 4	--	--	--	--	--
03/20/74 1211	5001 5050	13.0C 16230	--	--	--	29	--	--	--	-- 142	-- 5	-- 14	--	--	--	--	--
E0 B 802.7 207.0 SUISUN BAY OFF BULLS HEAD POINT NEAR MARTINEZ																	
10/03/73 1040	5001 5050	19.0C 16400	8.0	8.0 7.9	--	3	--	--	--	1.5 B 33	-- 5	-- 8	--	--	--	--	--
10/31/73 0735	5001 5050	16.0C 15950	7.6	7.8 7.8	--	3	--	--	--	28	5	10	--	--	--	--	--
12/05/73 1230	5001 5050	11.0C 3790	9.7	7.1 7.9	--	3	--	--	--	0.8 B 32	-- 5	-- 5	--	--	--	--	--
01/16/74 0810	5001 5050	8.0C 7080	10.1	7.7 7.8	--	3	--	--	--	0.4 B 27	-- 5	-- 8	--	--	--	--	--
02/15/74 1015	5001 5050	10 C 3650	10.1	7.7	--	3	--	--	--	0.8 B 45	-- 5	-- 8	--	--	--	--	--
04/03/74 1130	5001 5050	15 C 153	9.8	7.6	--	3	--	--	--	1.9 B 97	-- 5	-- 12	--	--	--	--	--
04/03/74 1131	5001 5050	15 C 143	--	--	--	32	--	--	--	-- 109	-- 5	-- 13	--	--	--	--	--
04/18/74 1205	5001 5050	14 C 2020	9.3	7.7	--	3	--	--	--	-- 56	-- 5	-- 5	--	--	--	--	--
04/18/74 1206	5001 5050	14 C 10450	--	--	--	31	--	--	--	-- 133	-- 5	-- 14	--	--	--	--	--
05/01/74 1115	5001 5050	16 C 9130	8.5	7.6	--	3	--	--	--	1.0 B 42	-- 5	-- 4	--	--	--	--	--
05/01/74 1116	5001 5050	16 C 15440	--	--	--	27	--	--	--	-- 147	-- 5	-- 14	--	--	--	--	--
05/15/74 0950	5001 5050	16 C 9690	8.6	7.7	--	3	--	--	--	-- 30	-- 5	-- 3	--	--	--	--	--
05/15/74 0951	5001 5050	16 C 18400	--	--	--	30	--	--	--	-- 70	-- 5	-- 8	--	--	--	--	--
06/13/74 0930	5001 5050	19 C 8370	8.3	7.9	--	3	--	--	--	1.8 B 38	-- 5	-- 9	--	--	--	--	--
06/13/74 0931	5001 5050	18 C 18700	--	--	--	29	--	--	--	-- 72	-- 5	-- 13	--	--	--	--	--
06/27/74 0930	5001 5050	20 C 11800	7.6	7.7	--	3	--	--	--	-- 24	-- 5	-- 4	--	--	--	--	--
06/27/74 0931	5001 5050	19 C 15400	--	--	--	27	--	--	--	-- 230	-- 5	-- 28	--	--	--	--	--
07/11/74 0730	5001 5050	19 C 13900	7.9	7.9	--	3	--	--	--	1.0 B 20	-- 5	-- 7	--	--	--	--	--
07/11/74 0731	5001 5050	19 C 21100	--	--	--	27	--	--	--	-- 75	-- 5	-- 12	--	--	--	--	--
07/25/74 0800	5001 5050	22 C 17700	7.2	7.8	--	3	--	--	--	-- 8	-- 5	-- 0	--	--	--	--	--
07/25/74 0801	5001 5050	22 C 21600	--	--	--	32	--	--	--	-- 65	-- 5	-- 8	--	--	--	--	--
08/14/74 1230	5001 5050	20 C 16400	8.1	8.0	--	3	--	--	--	1.2 B 49	-- 5	-- 4	--	--	--	--	--
08/14/74 1231	5001 5050	21 C 18600	--	--	--	30	--	--	--	-- 104	-- 5	-- 10	--	--	--	--	--
08/28/74 1240	5001 5050	21.0C 12400	8.5	8.1	--	3	--	--	--	-- 73	-- 5	-- 15	--	--	--	--	--
08/28/74 1241	5001 5050	21.0C 16000	--	--	--	30	--	--	--	-- 196	-- 5	-- 28	--	--	--	--	--
09/11/74 1245	5001 5050	21 C 10600	8.2	8.0	--	3	--	--	--	1.3 B 33	-- 5	-- 8	--	--	--	--	--
09/11/74 1246	5001 5050	22 C 15000	--	--	--	31	--	--	--	-- 52	-- 5	-- 10	--	--	--	--	--
09/25/74 1135	5001 5050	18 C 9800	8.1	7.9	--	3	--	--	--	-- 36	-- 5	-- 10	--	--	--	--	--
09/25/74 1136	5001 5050	18 C 15500	--	--	--	30	--	--	--	-- 93	-- 5	-- 14	--	--	--	--	--

TABLE D-4 (CONTINUED)  
MISCELLANEOUS CONSTITUENTS IN SURFACE WATER

DATE TIME	SAMP LAB	TEMP EC	DO G.M.	F-PH L-PH	DISCH MBAS	DEPTH TURR	T+L CHLOR	U+O COLOR	SET S ML/L MG/L	800 SUS S	COO V SUS S	CYANIDE PHENOLS	TOC DOC	IODIDE T ODOH	BROMIDE SULFITE	T SULF D SULF	CC EXT CA EXT
EQ R 802.8 155.0 SACHAMENTO RIVER AT CHIPPS ISLAND																	
10/03/73	5001	19.0C	7.9	8.0						1.0 B	--	--	--	--	--	--	--
1135	5050	1390		8.1	--		--	--	--	76 S	11	--	--	--	--	--	--
10/31/73	5001	17.0C	8.1	7.4		3	--	--	--	--	--	--	--	--	--	--	--
0900	5050	1552		7.9	--		--	--	--	47 S	13	--	--	--	--	--	--
12/05/73	5001	10.0C	9.7	6.9		3	--	--	--	1.4 B	--	--	--	--	--	--	--
1405	5050	137		7.8	--		--	--	--	60 S	8	--	--	--	--	--	--
01/16/74	5001	9.0C	10.3	7.6		3	--	--	--	1.3 B	--	--	--	--	--	--	--
0910	5050	181		7.8	--		--	--	--	30 S	6	--	--	--	--	--	--
02/15/74	5001	9.0C	10.4	7.6		3	--	--	--	1.2 B	--	--	--	--	--	--	--
1115	5050	165			--		--	--	--	52 S	10	--	--	--	--	--	--
03/20/74	5001	14.0C	9.5	7.9		3	--	--	--	1.4 B	--	--	--	--	--	--	--
1400	5050	156			--		--	--	--	38 S	5	--	--	--	--	--	--
03/20/74	5001	14.0C				47	--	--	--	--	--	--	--	--	--	--	--
1401	5050	154			--		--	--	--	44 S	5	--	--	--	--	--	--
04/03/74	5001	13 C	9.6	7.6		3	--	--	--	1.1 B	--	--	--	--	--	--	--
1305	5050	125			--		--	--	--	180 S	20	--	--	--	--	--	--
04/03/74	5001	13 C				41	--	--	--	--	--	--	--	--	--	--	--
1306	5050	123			--		--	--	--	332 S	22	--	--	--	--	--	--
04/18/74	5001	16 C	9.7	7.6		3	--	--	--	--	--	--	--	--	--	--	--
1325	5050	144			--		--	--	--	58 S	6	--	--	--	--	--	--
04/18/74	5001	15 C				41	--	--	--	--	--	--	--	--	--	--	--
1326	5050	144			--		--	--	--	62 S	7	--	--	--	--	--	--
05/01/74	5001	16 C	9.2	7.6		3	--	--	--	1.1 B	--	--	--	--	--	--	--
1245	5050	171			--		--	--	--	48 S	3	--	--	--	--	--	--
05/01/74	5001	16 C				40	--	--	--	--	--	--	--	--	--	--	--
1246	5050	171			--		--	--	--	68 S	5	--	--	--	--	--	--
05/15/74	5001	18 C	8.3	7.9		3	--	--	--	--	--	--	--	--	--	--	--
1105	5050	182			--		--	--	--	54 S	6	--	--	--	--	--	--
05/15/74	5001	17 C				41	--	--	--	--	--	--	--	--	--	--	--
1106	5050	180			--		--	--	--	51 S	7	--	--	--	--	--	--
06/13/74	5001	20 C	8.4	8.1		3	--	--	--	1.4 B	--	--	--	--	--	--	--
1045	5050	318			--		--	--	--	72 S	10	--	--	--	--	--	--
06/13/74	5001	19 C				33	--	--	--	--	--	--	--	--	--	--	--
1046	5050	343			--		--	--	--	101 S	14	--	--	--	--	--	--
06/27/74	5001	20 C	8.1	7.9		3	--	--	--	--	--	--	--	--	--	--	--
1040	5050	1040			--		--	--	--	72 S	10	--	--	--	--	--	--
06/27/74	5001	21 C				36	--	--	--	--	--	--	--	--	--	--	--
1041	5050	999			--		--	--	--	102 S	12	--	--	--	--	--	--
07/11/74	5001	20 C	7.9	7.8		3	--	--	--	0.9 B	--	--	--	--	--	--	--
0855	5050	2690			--		--	--	--	49 S	8	--	--	--	--	--	--
07/11/74	5001	20 C				39	--	--	--	--	--	--	--	--	--	--	--
0856	5050	2900			--		--	--	--	78 S	11	--	--	--	--	--	--
07/25/74	5001	23 C	7.5	7.8		3	--	--	--	--	--	--	--	--	--	--	--
0915	5050	2850			--		--	--	--	82 S	9	--	--	--	--	--	--
07/25/74	5001	23 C				36	--	--	--	--	--	--	--	--	--	--	--
0916	5050	4090			--		--	--	--	129 S	14	--	--	--	--	--	--
08/14/74	5001	21 C	7.8	7.9		3	--	--	--	1.8 B	--	--	--	--	--	--	--
1345	5050	2120			--		--	--	--	80 S	8	--	--	--	--	--	--
08/14/74	5001	22 C				42	--	--	--	--	--	--	--	--	--	--	--
1346	5050	2470			--		--	--	--	124 S	17	--	--	--	--	--	--
08/28/74	5001	21.0C	8.4	7.9		3	--	--	--	--	--	--	--	--	--	--	--
1345	5050	1130			--		--	--	--	92 S	14	--	--	--	--	--	--
08/28/74	5001	21.0C				46	--	--	--	--	--	--	--	--	--	--	--
1346	5050	1140			--		--	--	--	160 S	23	--	--	--	--	--	--
09/11/74	5001	22 C	8.2	8.0		3	--	--	--	0.9 B	--	--	--	--	--	--	--
1405	5050	336			--		--	--	--	42 S	8	--	--	--	--	--	--
09/11/74	5001	23 C				50	--	--	--	--	--	--	--	--	--	--	--
1406	5050	424			--		--	--	--	82 S	12	--	--	--	--	--	--
09/25/74	5001	19 C	8.9	8.0		3	--	--	--	--	--	--	--	--	--	--	--
1235	5050	295			--		--	--	--	65 S	9	--	--	--	--	--	--
09/25/74	5001	19 C				39	--	--	--	--	--	--	--	--	--	--	--
1230	5050	302			--		--	--	--	85 S	10	--	--	--	--	--	--
EQ R 803.5 217.0 SAN PABLO BAY NEAR ROQUEO																	
10/03/73	5001	18.0C	7.7	7.9		3	--	--	--	0.7 B	--	--	--	--	--	--	--
0945	5050	24800			--		--	--	--	9 S	4	--	--	--	--	--	--
12/05/73	5001	11.0C	10.0	7.2		3	--	--	--	0.8 B	--	--	--	--	--	--	--
1145	5050	96500			--		--	--	--	19 S	3	--	--	--	--	--	--
01/16/74	5001	9.0C	10.1	7.6		3	--	--	--	1.2 B	--	--	--	--	--	--	--
0730	5050	5480		7.8	--		--	--	--	40 S	9	--	--	--	--	--	--
02/15/74	5001	10.0C	9.4	7.6		3	--	--	--	0.5 B	--	--	--	--	--	--	--
0925	5050	12600			--		--	--	--	21 S	9	--	--	--	--	--	--



TABLE D-4 (CONTINUED)  
MISCELLANEOUS CONSTITUENTS IN SURFACE WATER

DATE TIME	SAMP LAB	TEMP EC	DO G.H.	F-PH L-PH	DISCH MBAS	DEPTH TURB	T-L CHLOR	0-6 COLOR	SET S ML/L MG/L	800 SUS S	COD V SUS S	CYANIDE PHENOLS	TOC DOC	10010E T OOUR	BROMIDE SULFITE	T SULF O SULF	CC EXT CA EXT
E0 8 803.6 159.3 SUISUN BAY OFF MIDDLE POINT																	
10/31/73 0830	5001 5050	17.0C 3930	7.9	7.6 7.8	--	3	--	--	--	51	5	13	--	--	--	--	--
12/05/73 1335	5001 5050	11.0C 129	9.8	7.1 7.8	--	3	--	--	--	52	5	8	--	--	--	--	--
03/20/74 1330	5001 5050	14.0C 150	9.0	7.9	--	3	--	--	--	44	5	6	--	--	--	--	--
03/20/74 1331	5001 5050	14.0C 163	--	--	--	34	--	--	--	45	5	4	--	--	--	--	--
04/03/74 1235	5001 5050	12 C 124	9.4	7.7	--	3	--	--	--	186	5	24	--	--	--	--	--
04/03/74 1236	5001 5050	12 C 124	--	--	--	35	--	--	--	221	5	15	--	--	--	--	--
04/18/74 1300	5001 5050	14 C 150	9.3	7.6	--	3	--	--	--	50	5	6	--	--	--	--	--
04/18/74 1301	5001 5050	14 C 150	--	--	--	31	--	--	--	60	5	5	--	--	--	--	--
05/01/74 1215	5001 5050	16 C 449	9.0	7.6	--	3	--	--	--	62	5	5	--	--	--	--	--
05/01/74 1216	5001 5050	16 C 359	--	--	--	30	--	--	--	83	5	6	--	--	--	--	--
05/15/74 1040	5001 5050	18 C 301	8.7	8.1	--	3	--	--	--	50	5	6	--	--	--	--	--
05/15/74 1041	5001 5050	17 C 2710	--	--	--	33	--	--	--	71	5	8	--	--	--	--	--
06/13/74 1015	5001 5050	20 C 520	8.6	8.1	--	3	--	--	--	94	5	13	--	--	--	--	--
06/13/74 1016	5001 5050	20 C 602	--	--	--	32	--	--	--	101	5	13	--	--	--	--	--
06/27/74 1020	5001 5050	20 C 2470	7.9	7.8	--	3	--	--	--	74	5	10	--	--	--	--	--
06/27/74 1021	5001 5050	20 C 4230	--	--	--	30	--	--	--	103	5	13	--	--	--	--	--
07/11/74 0825	5001 5050	20 C 5430	8.2	7.9	--	3	--	--	--	36	5	7	--	--	--	--	--
07/11/74 0826	5001 5050	20 C 8080	--	--	--	29	--	--	--	124	5	16	--	--	--	--	--
07/25/74 0855	5001 5050	23 C 4680	7.7	7.8	--	3	--	--	--	56	5	7	--	--	--	--	--
07/25/74 0856	5001 5050	23 C 8190	--	--	--	32	--	--	--	105	5	11	--	--	--	--	--
08/14/74 1320	5001 5050	21 C 3620	8.0	8.0	--	3	--	--	--	80	5	9	--	--	--	--	--
08/14/74 1321	5001 5050	22 C 7320	--	--	--	34	--	--	--	233	5	26	--	--	--	--	--
08/28/74 1325	5001 5050	21.0C 2150	8.6	8.0	--	3	--	--	--	84	5	17	--	--	--	--	--
08/28/74 1326	5001 5050	21 C 4250	--	--	--	46	--	--	--	207	5	30	--	--	--	--	--
09/11/74 1340	5001 5050	22 C 1910	8.1	7.9	--	3	--	--	--	69	5	15	--	--	--	--	--
09/11/74 1341	5001 5050	23 C 3100	--	--	--	33	--	--	--	108	5	19	--	--	--	--	--
09/25/74 1215	5001 5050	19 C 696	8.9	8.0	--	3	--	--	--	93	5	13	--	--	--	--	--
09/25/74 1216	5001 5050	19 C 1130	--	--	--	33	--	--	--	127	5	17	--	--	--	--	--
E0 8 804.0 203.0 SUISUN BAY NEAR PRESTON POINT																	
10/03/73 1105	5001 5050	18.0C 6820	8.1	8.0 7.9	--	--	--	--	--	1.4	8	--	--	--	--	--	--
10/31/73 0800	5001 5050	17.0C 9874	7.9	7.7 7.7	--	--	--	--	--	40	5	12	--	--	--	--	--
12/05/73 1300	5050 5050	11.0C 11650	--	--	--	47	--	--	--	31	5	6	--	--	--	--	--
12/05/73 1300	5001 5050	11.0C 385	9.8	7.1 7.7	--	3	--	--	--	1.1	8	--	--	--	--	--	--
12/05/73 1301	5050 5050	11.0C 1170	--	--	--	25	--	--	--	38	5	5	--	--	--	--	--
01/16/74 0835	5001 5050	9.0C 2370	10.2	7.3 7.7	--	3	--	--	--	1.2	8	--	--	--	--	--	--
02/15/74 1045	5001 5050	9.0C 385	10.1	7.7	--	3	--	--	--	0.7	8	--	--	--	--	--	--
03/20/74 1255	5001 5050	14.0C 703	9.3	8.0	--	3	--	--	--	1.4	8	--	--	--	--	--	--

TABLE D-4 (CONTINUED)  
MISCELLANEOUS CONSTITUENTS IN SURFACE WATER

DATE TIME	SAMP LAB	TEMP EC	DO G.H.	F-PH L-PH	DISCH MG/AS	DEPTH TURB	T-L CHLOR	0-8 COLOR	SET 5 ML/L MG/L	BOD SUS S	COD SUS S	CYANIDE PHENOLS	TOC DOC	IOUIDE T ODOOR	BROMIDE SULFITE	T SULF D SULF	CC EAT CA EXT
E0 B 804.0 203.0 SUISUN BAY NEAR PRESTON POINT CONTINUED																	
03/20/74 1250	5001 5050	14.0C 5370			--	33	--	--	--	72 5	8	--	--	--	--	--	--
04/03/74 1205	5001 5050	13 C 124	9.6	7.7	--	3	--	--	--	1.3 B 173 5	--	--	--	--	--	--	--
04/03/74 1200	5001 5050	13 C 129			--	41	--	--	--	222 5	24	--	--	--	--	--	--
04/18/74 1230	5001 5050	14 C 154	9.4	7.6	--	3	--	--	--	54 5	6	--	--	--	--	--	--
04/18/74 1231	5001 5050	14 C 319			--	28	--	--	--	59 5	6	--	--	--	--	--	--
05/01/74 1140	5001 5050	16 C 1350	9.1	7.7	--	3	--	--	--	0.9 B 111 5	--	--	--	--	--	--	--
05/01/74 1141	5001 5050	16 C 7250			--	40	--	--	--	89 5	8	--	--	--	--	--	--
05/15/74 1015	5001 5050	17 C 2610	9.2	8.0	--	3	--	--	--	90 5	9	--	--	--	--	--	--
05/15/74 1016	5001 5050	17 C 12900			--	37	--	--	--	164 5	16	--	--	--	--	--	--
06/13/74 0950	5001 5050	19 C 3680	8.3	8.1	--	3	--	--	--	1.4 B 100 5	--	--	--	--	--	--	--
06/13/74 0951	5001 5050	19 C 13500			--	40	--	--	--	59 5	11	--	--	--	--	--	--
06/27/74 0950	5001 5050	20 C 3910	7.8	7.8	--	3	--	--	--	118 5	14	--	--	--	--	--	--
06/27/74 0951	5001 5050	20 C 8610			--	40	--	--	--	230 5	25	--	--	--	--	--	--
07/11/74 0800	5001 5050	19 C 9120	8.0	8.0	--	3	--	--	--	0.8 B 54 5	--	--	--	--	--	--	--
07/11/74 0801	5001 5050	19 C 15600			--	40	--	--	--	117 5	18	--	--	--	--	--	--
07/25/74 0835	5001 5050	23 C 8990	7.6	7.8	--	3	--	--	--	72 5	9	--	--	--	--	--	--
07/25/74 0836	5001 5050	22 C 14400			--	40	--	--	--	114 5	12	--	--	--	--	--	--
08/14/74 1255	5001 5050	20 C 10200	8.7	8.0	--	3	--	--	--	1.3 B 105 5	--	--	--	--	--	--	--
08/14/74 1256	5001 5050	22 C 12700			--	39	--	--	--	196 5	18	--	--	--	--	--	--
08/28/74 1300	5001 5050	21.0C 5610	8.5	8.2	--	3	--	--	--	124 5	21	--	--	--	--	--	--
08/28/74 1301	5001 5050	21.0C 9220			--	40	--	--	--	272 5	34	--	--	--	--	--	--
09/11/74 1315	5001 5050	22 C 2250	8.1	7.9	--	3	--	--	--	1.2 B 80 5	--	--	--	--	--	--	--
09/11/74 1316	5001 5050	22 C 8210			--	33	--	--	--	94 5	14	--	--	--	--	--	--
09/25/74 1155	5001 5050	19 C 1560	9.0	7.7	--	3	--	--	--	109 5	16	--	--	--	--	--	--
09/25/74 1156	5001 5050	18 C 8240			--	40	--	--	--	366 5	40	--	--	--	--	--	--
E0 B 804.4 156.2 MONK BAY NEAR WHEELER POINT																	
10/04/73 1005	5001 5050	19.0C 1830	8.1	7.8	--	3	--	--	--	88 5	20	--	--	--	--	--	--
11/01/73 0835	5001 5050	17.0C 2390	8.2	7.6	--	3	--	--	--	85 5	16	--	--	--	--	--	--
12/06/73 1120	5001 5050	19.0C 155	9.9	7.1	--	3	--	--	--	71 5	9	--	--	--	--	--	--
01/17/74 1035	5001 5050	9.0C 168	10.2	7.7	--	3	--	--	--	34 5	6	--	--	--	--	--	--
02/14/74 0940	5001 5050	9.0C 146	9.8	7.6	--	3	--	--	--	64 5	12	--	--	--	--	--	--
03/21/74 1325	5001 5050	13.0C 150	9.3	7.8	--	3	--	--	--	52 5	4	--	--	--	--	--	--
04/02/74 1045	5001 5050	12 C 126	10.1	7.7	--	3	--	--	--	54 5	8	--	--	--	--	--	--
04/17/74 1115	5001 5050	18 C 149	9.6	7.4	--	3	--	--	--	62 5	6	--	--	--	--	--	--
04/30/74 1005	5001 5050	16 C 159	9.2	7.6	--	3	--	--	--	38 5	2	--	--	--	--	--	--
05/14/74 0905	5001 5050	17 C 234	9.1	7.6	--	3	--	--	--	140 5	14	--	--	--	--	--	--
06/12/74 0720	5001 5050	20 C 363	7.3	8.3	--	3	--	--	--	174 5	18	--	--	--	--	--	--



TABLE D-4 (CONTINUED)  
MISCELLANEOUS CONSTITUENTS IN SURFACE WATER

DATE TIME	SAMP LAB	TEMP EC	DO G.M.	F-PH L-PH	DISCH MBAS	DEPTH TURB	T-L CHLOR	O-G COLOR	SET 5 ML/L MG/L	800 SUS S	COD V SUS S	CYANIDE PHENOLS	TOC DOC	IODIDE T ODOR	BROMIDE SULFITE	T SULF D SULF	CC EXT CA EXT
E0 B 804.4 156.2 MONK BAY NEAR WHEELER POINT																	
										CONTINUED							
06/26/74	5001	20 C	7.6	7.8	--	3	--	--	--	--	--	--	--	--	--	--	--
0805	5050	1050			--		--	--	--	103	5	12	--	--	--	--	--
07/10/74	5001	20 C	8.0	7.8	--	3	--	--	--	--	--	--	--	--	--	--	--
0630	5050	4020			--		--	--	--	81	5	13	--	--	--	--	--
07/24/74	5001	22 C	7.6	7.7	--	3	--	--	--	--	--	--	--	--	--	--	--
0700	5050	3880			--		--	--	--	133	5	13	--	--	--	--	--
08/13/74	5001	20 C	7.6	7.7	--	3	--	--	--	--	--	--	--	--	--	--	--
1155	5050	3220			--		--	--	--	108	5	8	--	--	--	--	--
08/27/74	5001	21 C	7.8	7.7	--	3	--	--	--	--	--	--	--	--	--	--	--
1235	5050	1510			--		--	--	--	154	5	14	--	--	--	--	--
09/12/74	5001	22 C	8.2	8.0	--	3	--	--	--	--	--	--	--	--	--	--	--
1240	5050	476			--		--	--	--	107	5	14	--	--	--	--	--
09/24/74	5001	19 C	8.7	7.8	--	3	--	--	--	--	--	--	--	--	--	--	--
1045	5050	213			--		--	--	--	86	5	11	--	--	--	--	--
E0 B 805.3 226.3 SAN PABLO BAY NEAR MOUTH OF PETALUMA RIVER																	
10/03/73	5001	17.0C	7.6	6.7	--	3	--	--	--	--	--	--	--	--	--	--	--
0815	5050	30600			--		--	--	--	22	5	6	--	--	--	--	--
12/05/73	5001	11.0C	9.9	7.2	--	3	--	--	--	--	--	--	--	--	--	--	--
1035	5050	10300			--		--	--	--	88	5	13	--	--	--	--	--
E0 B 807.0 202.3 GRIZZLY BAY AT DOOLPHIN NEAR SUISUN SLOUGH																	
10/04/73	5001	18.0C	8.1	7.1	--	3	--	--	--	--	--	--	--	--	--	--	--
0815	5050	5020		7.8	--		--	--	--	82	5	13	--	--	--	--	--
10/31/73	5001	16.0C	8.1	7.6	--	3	--	--	--	--	--	--	--	--	--	--	--
0655	5050	5580		7.6	--		--	--	--	66	5	14	--	--	--	--	--
12/06/73	5001	10.0C	9.8	7.1	--	3	--	--	--	--	--	--	--	--	--	--	--
0935	5050	142		7.0	--		--	--	--	58	5	8	--	--	--	--	--
01/17/74	5001	9.0C	10.6	7.7	--	3	--	--	--	--	--	--	--	--	--	--	--
0915	5050	184		8.0	--		--	--	--	31	5	6	--	--	--	--	--
02/14/74	5001	9.0C	10.3	7.6	--	3	--	--	--	--	--	--	--	--	--	--	--
0905	5050	239			--		--	--	--	74	5	13	--	--	--	--	--
03/21/74	5001	14.0C	9.8	7.7	--	3	--	--	--	--	--	--	--	--	--	--	--
1250	5050	155			--		--	--	--	64	5	4	--	--	--	--	--
04/02/74	5001	13 C	9.5	7.5	--	3	--	--	--	--	--	--	--	--	--	--	--
1015	5050	150			--		--	--	--	58	5	7	--	--	--	--	--
04/17/74	5001	15 C	9.6	7.3	--	3	--	--	--	--	--	--	--	--	--	--	--
1040	5050	146			--		--	--	--	79	5	7	--	--	--	--	--
04/30/74	5001	16 C	8.8	7.7	--	3	--	--	--	--	--	--	--	--	--	--	--
0930	5050	175			--		--	--	--	52	5	4	--	--	--	--	--
05/14/74	5001	16 C	9.2	8.0	--	3	--	--	--	--	--	--	--	--	--	--	--
0835	5050	282			--		--	--	--	145	5	14	--	--	--	--	--
06/13/74	5001	19 C	8.2	7.9	--	3	--	--	--	--	--	--	--	--	--	--	--
0850	5050	2350			--		--	--	--	231	5	21	--	--	--	--	--
06/27/74	5001	20 C	7.9	7.8	--	3	--	--	--	--	--	--	--	--	--	--	--
0845	5050	2510			--		--	--	--	140	5	17	--	--	--	--	--
07/11/74	5001	19 C	7.6	7.8	--	3	--	--	--	--	--	--	--	--	--	--	--
0640	5050	6880			--		--	--	--	76	5	12	--	--	--	--	--
07/25/74	5001	23 C	7.7	7.8	--	3	--	--	--	--	--	--	--	--	--	--	--
0715	5050	7600			--		--	--	--	56	5	7	--	--	--	--	--
08/14/74	5001	20 C	8.4	8.1	--	3	--	--	--	--	--	--	--	--	--	--	--
1155	5050	6840			--		--	--	--	105	5	10	--	--	--	--	--
08/28/74	5001	20.0C	8.5	8.1	--	3	--	--	--	--	--	--	--	--	--	--	--
1205	5050	4260			--		--	--	--	147	5	23	--	--	--	--	--
09/12/74	5001	22 C	8.3	7.9	--	3	--	--	--	--	--	--	--	--	--	--	--
1205	5050	2410			--		--	--	--	171	5	22	--	--	--	--	--
09/25/74	5001	18 C	9.0	7.7	--	3	--	--	--	--	--	--	--	--	--	--	--
1040	5050	947			--		--	--	--	182	5	20	--	--	--	--	--
E0 S 809.2 205.3 CORDELIA SLOUGH AT CYGNUS																	
10/25/73	5001	15.0C	2.2	7.1	--	3	--	--	--	--	--	--	--	--	--	--	--
0850	5050	6700		7.1	--		--	--	--	72	5	14	--	--	--	--	--
11/19/73	5001	12 C	7.6	7.4	--	3	--	--	--	--	--	--	--	--	--	--	--
1045	5050	3400		7.4	--		--	--	--	93	5	15	--	--	--	--	--
12/18/73	5001	9 C	8.3	7.1	--	3	--	--	--	--	--	--	--	--	--	--	--
1105	5050	1030		7.6	--		--	--	--	96	5	11	--	--	--	--	--
01/15/74	5001	7 C	9.7	7.3	--	3	--	--	--	--	--	--	--	--	--	--	--
0930	5050	1470		7.6	--		--	--	--	75	5	8	--	--	--	--	--
E0 S 810.8 202.8 SUISUN SLOUGH AT VOLANTI SLOUGH ON JOICE ISLAND																	
10/04/73	5001	18.0C	7.1	7.6	--	3	--	--	--	--	--	--	--	--	--	--	--
0900	5050	6040		8.1	--		--	--	--	55	5	10	--	--	--	--	--
10/25/73	5001	16.0C	8.1	7.6	--	3	--	--	--	--	--	--	--	--	--	--	--
1245	5050	5700		7.9	--		--	--	--	105	5	12	--	--	--	--	--
11/19/73	5001	12 C	6.6	7.4	--	3	--	--	--	--	--	--	--	--	--	--	--
1405	5050	3950		7.6	--		--	--	--	119	5	19	--	--	--	--	--

TABLE D-4 (CONTINUED)  
MISCELLANEOUS CONSTITUENTS IN SURFACE WATER

DATE TIME	SAMP LAB	TEMP EC	DO G.H.	F-PH L-PH	DISCH MBAS	DEPTH TURB	T-L CHLOR	SET S ML/L O-B COLOR	800 SUS S	COO V SUS S	CYANIDE PHENOLS	TOC DOC	10010E T OODR	BROMIDE SULFITE	T SULF D SULF	CC EAT CA EAT
E0 S 810.8 202.8 SUISUN SLOUGH AT VOLANTI SLOUGH ON JOICE ISLAND CONTINUED																
12/06/73	5001	10.0C	8.1	6.8		3	--	--	1.5 8	--	--	--	--	--	--	--
1020	5050	1920		7.5	--	--	--	--	78 5	12	--	--	--	--	--	--
12/18/73	5001					3	--	--	--	--	--	--	--	--	--	--
1445	5050				--	--	--	--	110 5	14	--	--	--	--	--	--
01/15/74	5001	7 C	8.7	7.4		3	--	--	3.0 8	--	--	--	--	--	--	--
1250	5050	2225		7.5	--	--	--	--	98 5	10	--	--	--	--	--	--
02/14/74	5001	9.0C	8.9	7.4		3	--	--	2.0 8	--	--	--	--	--	--	--
0805	5050	1370			--	--	--	--	104 5	18	--	--	--	--	--	--
03/22/74	5001	14.5C	8.4	7.5		3	--	--	--	--	--	--	--	--	--	--
1515	5050	015			--	--	--	--	110 5	16	--	--	--	--	--	--
05/14/74	5001	17 C		7.8		3	--	--	--	--	--	--	--	--	--	--
0845	5050	1160			--	--	--	--	86 5	12	--	--	--	--	--	--
07/25/74	5001	25 C	7.6	7.6		3	--	--	3.6 8	--	--	--	--	--	--	--
0757	5050	5100			--	--	--	--	--	--	--	--	--	--	--	--
E0 S 811.0 204.8 CHADBOURNE SLOUGH AT CHADBOURNE ROAD																
10/25/73	5001	16.0C	7.0	7.6		3	--	--	--	--	--	--	--	--	--	--
1125	5050	5700		7.5	--	--	--	--	120 5	13	--	--	--	--	--	--
11/19/73	5001	11 C	7.0	7.2		3	--	--	--	--	--	--	--	--	--	--
1305	5050	4950		7.6	--	--	--	--	100 5	17	--	--	--	--	--	--
12/18/73	5001	10 C	7.5	7.0		3	--	--	--	--	--	--	--	--	--	--
1300	5050	2630		8.0	--	--	--	--	102 5	17	--	--	--	--	--	--
01/15/74	5001		9.3	7.4		3	--	--	--	--	--	--	--	--	--	--
1140	5050	1220		7.4	--	--	--	--	117 5	14	--	--	--	--	--	--
E0 S 811.2 158.5 MONTEZUMA SLOUGH AT GRIZZLY ISLAND ROAD																
10/25/73	5001	16.0C	7.7	7.6		3	--	--	--	--	--	--	--	--	--	--
1340	5050	5600		8.0	--	--	--	--	71 5	9	--	--	--	--	--	--
11/19/73	5001	12 C	8.3	7.4		3	--	--	--	--	--	--	--	--	--	--
1455	5050	2400		7.6	--	--	--	--	84 5	14	--	--	--	--	--	--
12/18/73	5001	9 C	8.6	7.1		3	--	--	--	--	--	--	--	--	--	--
1535	5050	1100		8.1	--	--	--	--	80 5	13	--	--	--	--	--	--
01/15/74	5001	7 C	10.1	7.3		3	--	--	--	--	--	--	--	--	--	--
1340	5050	850		7.8	--	--	--	--	65 5	6	--	--	--	--	--	--
E0 S 811.5 207.2 CORDELIA SLOUGH AT UPPER ENO																
10/25/73	5001	16.0C	7.8	8.1		1	--	--	--	--	--	--	--	--	--	--
0955	5050	840		7.7	--	--	--	--	41 5	8	--	--	--	--	--	--
06/28/74	5001	21 C	7.8	8.9		3	--	--	--	--	--	--	--	--	--	--
1145	5001	950			--	--	--	--	60 5	11	--	--	--	--	--	--
E0 S 813.6 201.2 HILL SLOUGH AT GRIZZLY ISLAND ROAD																
10/25/73	5001	16.0C	7.1	7.8		3	--	--	--	--	--	--	--	--	--	--
1410	5050	6000		8.0	--	--	--	--	91 5	14	--	--	--	--	--	--
11/19/73	5001	10 C	6.5	7.4		3	--	--	--	--	--	--	--	--	--	--
1530	5050	1190		7.6	--	--	--	--	169 5	28	--	--	--	--	--	--
12/18/73	5001	10 C	7.1	7.3		3	--	--	--	--	--	--	--	--	--	--
1615	5050	3180		7.7	--	--	--	--	80 5	13	--	--	--	--	--	--
01/15/74	5001	9 C	7.4	7.5		3	--	--	--	--	--	--	--	--	--	--
1420	5050	1675		7.6	--	--	--	--	78 5	9	--	--	--	--	--	--
E2 E 806.9 230.3 PETALUMA RIVER AT HIGHWAY 37 AT GREEN POINT																
11/26/73	5050	47 F	8.6	7.6			--	--	--	--	--	--	--	--	--	--
0845	5050	16300		7.1	--	--	--	--	48 5	--	--	--	--	--	--	--
05/22/74		16.8C	9.7	7.8			--	--	--	--	--	--	--	--	--	--
1019	5050	7300			--	--	--	--	50 5	--	--	--	--	--	--	--
06/05/74	5052	20.1C	7.5	7.8			--	--	--	--	--	--	--	--	--	--
0640	5050	16000			--	--	--	--	215 5	--	--	--	--	--	--	--
E2 E 809.5 232.5 PETALUMA RIVER BELOW SAN ANTONIO CREEK																
05/22/74	5052	16.6C	9.1	7.9			--	--	--	--	--	--	--	--	--	--
1030	5050	8000			--	--	--	--	72 5	--	--	--	--	--	--	--
06/05/74	5052	19.9C	7.7	6.8			--	--	--	--	--	--	--	--	--	--
0705	5050	11000			--	--	--	--	76 5	--	--	--	--	--	--	--
E2 E 809.5 233.0 SAN ANTONIO CREEK NEAR MOUTH																
10/19/73	5050	60 F	6.9	7.6			--	--	--	--	--	--	--	--	--	--
0920	5050	38000		7.7	--	--	--	--	32 5	--	--	--	--	--	--	--
11/26/73	5050	48 F	7.6	7.3			--	--	--	--	--	--	--	--	--	--
0915	5050	10500		7.0	--	--	--	--	67 5	--	--	--	--	--	--	--
05/22/74	5052	16.3C	8.1	7.8			--	--	--	--	--	--	--	--	--	--
0940	5050	8000			--	--	--	--	74 5	--	--	--	--	--	--	--
06/05/74	5052	19.3C	7.2	7.6			--	--	--	--	--	--	--	--	--	--
0717	5050	13000			--	--	--	--	111 5	--	--	--	--	--	--	--



TABLE D-4 (CONTINUED)  
MISCELLANEOUS CONSTITUENTS IN SURFACE WATER

DATE TIME	SAMP LAB	TEMP EC	DO G.M.	F-PH L-PH	DISCH MGAS	DEPTH TURB	T+L CHLOR	SET S O+O ML/L COLOR	800 SUS S	COD V SUS S	CYANIDE PHENOLS	TOC DOC	100IDE T ODOOR	BROMIDE SULFITE	T SULF D SULF	CC EXT CA EXT
E2 E 810.6 224.9 SONOMA CREEK AT CAMP SIX																
05/29/74 1330	5050 5050	71 F 10850	6.9	7.8	--	--	--	--	214	5	--	--	--	--	--	--
E2 E 811.8 226.1 SONOMA CREEK AT MCGILL																
05/29/74 1245	5050 5050	72 F 1500	7.6	7.9	--	--	--	--	444	5	--	--	--	--	--	--
E2 E 811.9 232.9 PETALUMA RIVER AT LAKEVILLE																
05/22/74 1050	5052 5050	14.6C 10200	10.0	7.8	--	--	--	--	71	5	--	--	--	--	--	--
06/05/74 0735	5052 5050	14.6C 10000	7.6	7.7	--	--	--	--	76	5	--	--	--	--	--	--
E2 E 812.3 234.2 PETALUMA RIVER, CUT H, AT SCHULTZ SLOUGH																
05/22/74 1110	5052 5050	14.2C 1900	8.0	7.6	--	--	--	--	84	5	--	--	--	--	--	--
06/05/74 0750	5052 5050	20.5C 7000	7.1	7.7	--	--	--	--	182	5	--	--	--	--	--	--
E2 E 813.7 236.7 PETALUMA RIVER AT MCNEAR AT PETALUMA																
10/19/73 0800	5050 5050	62 F 37000	6.5	7.8	--	--	--	--	53	5	--	--	--	--	--	--
11/26/73 0945	5050 5050	44.5F 1700	6.1	7.1	--	--	--	--	80	5	--	--	--	--	--	--
05/22/74 1125	5052 5050	14.6C 1500	9.1	7.5	--	--	--	--	64	5	--	--	--	--	--	--
06/05/74 0810	5052 5050	20.5C 4100	7.1	7.6	--	--	--	--	196	5	--	--	--	--	--	--
E2 E 814.1 238.1 PETALUMA RIVER AT O STREET IN PETALUMA																
05/22/74 1145	5052 5050	14.6C 1600	8.9	7.5	--	--	--	--	140	5	--	--	--	--	--	--
06/05/74 0818	5052 5050	20.6C 5300	8.7	7.7	--	--	--	--	246	5	--	--	--	--	--	--
E2 E 814.7 238.3 PETALUMA RIVER AT WEST PAYRAN ST AT PETALUMA																
10/19/73 0830	5050 5050	60 F 34030	9.0	7.6	--	--	--	--	56	5	--	--	--	--	--	--
11/26/73 1015	5050 5050	47 F 750	6.8	7.3	--	--	--	--	10	5	--	--	--	--	--	--
E2 5145.01 SAN ANTONIO CREEK ABOVE HIGHWAY 101																
05/22/74 0940	5050 5050	59 F 646	7.7	7.5	--	--	--	--	1.2 R 9	5	--	--	--	--	--	--
06/05/74 1115	5050 5050	69 F 662	8.6	7.7	0.8	--	--	--	11	5	--	--	--	--	--	--
E2 5157.01 ADOBE CREEK AT LAKEVILLE ROAD																
05/22/74 1015	5050 5050	61 F 463	10.5	7.8	--	--	--	--	10	5	--	--	--	--	--	--
06/05/74 0900	5050 5050	77 F 480	12.6	8.3	--	--	--	--	7	5	--	--	--	--	--	--
E2 5200.00 PETALUMA RIVER AT PETALUMA (AT CROWN ROAD)																
05/22/74 0821	5050 5050	61 F 855	9.4	8.1	--	--	--	--	22	5	--	--	--	--	--	--
06/05/74 1030	5050 5050	71 F 931	7.5	7.5	0.6	--	--	--	10	5	--	--	--	--	--	--
E2 5220.01 WILLOW BROOK AT STONY POINT ROAD																
05/22/74 1045	5050 5050	65 F 756	12.1	8.2	--	--	--	--	1.2 R 18	5	--	--	--	--	--	--
06/05/74 1000	5050 5050	70 F 825	8.3	8.0	0.5	--	--	--	2	5	--	--	--	--	--	--
E2 5230.01 PETALUMA RIVER AT OLD REDWOOD HIGHWAY NORTH																
11/26/73 1045	5050 5050	47 F 675	8.3	7.2	--	--	--	--	6	5	--	--	--	--	--	--
E2 5235.01 WILLOW BROOK AT ADOBE ROAD																
05/22/74 1110	5050 5050	70 F 507	9.5	8.1	--	--	--	--	28	5	--	--	--	--	--	--
06/05/74 0930	5050 5050	72 F 620	8.6	8.2	--	--	--	--	3	5	--	--	--	--	--	--
E2 5261.01 LICHAU CREEK AT RAILROAD AVENUE																
05/22/74 1050	5050 5050	69 F 615	13.0	8.2	--	--	--	--	8	5	--	--	--	--	--	--

TABLE D-4 (CONTINUED)  
MISCELLANEOUS CONSTITUENTS IN SURFACE WATER

DATE TIME	SAMP LAB	TEMP EC	DO G.M.	F-PH L-PH	DISCH MBAS	DEPTH TURB	T+L CHLOR	SET S 0+0 ML/L COLOR MO/L	ROO SUS S	COD V SUS S	CYANIDE PHENOLS	TOC DOC	IODIDE T ODOOR	BROMIDE SULFITE	Y SULF D SULF	CC EXT CA EXT
E2 6075.01 SONOMA CREEK AT HIGHWAY 121																
05/29/74 1210	5050 5050	67 F 458	9.8	7.5	--	--	--	--	7	5	--	--	--	--	--	--
E2 6175.01 SONOMA CREEK AT LEVERONI ROAD																
05/29/74 0930	5050 5050	66 F 333	11.5	8.1	--	--	--	--	8	5	--	--	--	--	--	--
E2 6200.00 SONOMA CREEK AT AGUA CALIENTE																
05/29/74 1000	5050 5050	64 F 290	9.4	7.9	--	--	--	--	10	5	--	--	--	--	--	--
E2 6635.01 SONOMA CREEK AT HIGHWAY 12 BRIDGE																
05/29/74 1100	5050 5050	61 F 375	9.3	7.8	2 E	--	--	--	5	5	--	--	--	--	--	--
E3 E 809.4 224.3 SONOMA CREEK AT HIGHWAY 37 (SEARS POINT ROAD)																
05/29/74 1400	5050 5050	72 F 13800	6.8	7.7	--	--	--	--	280	5	--	--	--	--	--	--
E3 2100.51 GREEN VALLEY CREEK AT CORDELIA																
11/19/73 1215	5001 5050	11 C 302	9.7	7.9	--	2	--	--	37	5	8	--	--	--	--	--
12/18/73 0950	5001 5050	10 C 500	7.9	7.3	--	2	--	--	44	5	5	--	--	--	--	--
01/15/74 1030	5001 5050	10 C 305	10.2	7.6	--	2	--	--	102	5	12	--	--	--	--	--



TABLE D-5

## NUTRIENT ANALYSIS OF SURFACE WATER

Sampler and Lab Agency Codes

- 5001 - U. S. Bureau of Reclamation
- 5050 - Department of Water Resources
- 5052 - San Francisco Bay Regional Water Quality Control Board

Abbreviations and Constituents

- TIME - Pacific Standard Time on a 24-hour clock
- G.H. - Instantaneous gage height in feet above an established datum
- DISCH. - Instantaneous discharge in cubic feet per second
- TEMP - Water temperature at time of sampling in degrees Fahrenheit (F) and Celsius (C)
- DEPTH - Depth in feet at which sample was collected
- PH - Measure of acidity (<7) or alkalinity (>7) of water
- EC - Electrical conductance in micromhos at 25° C
- TURB - Jackson Turbidity Units measured with a Hellige Turbidimeter (E) or a Hack Nephelometer (A) with (F) for field determination.
- F-CO2 - Field determination of carbon dioxide in milligrams per liter
- CAC03 P - Field Alkalinity (Phenol)
- CAC03 T - Field Alkalinity (Total)
- HCO3 - Bicarbonate in milligrams per liter
- CO3 - Carbonate in milligrams per liter
- NH3 - Unfiltered ammonia
- NO2 - Unfiltered nitrite
- NO3 - Unfiltered nitrate
- F ORG N - Dissolved organic nitrogen
- U ORG N - Organic nitrogen
- F (NH3 + - Ammonia and dissolved organic nitrogen
- U ORN N) - Ammonia and organic nitrogen
- DIS - Dissolved acid hydrolyzable phosphate
- A.H.PO4 - Dissolved acid hydrolyzable phosphate
- F H3PO4 - Dissolved orthophosphate
- U H3PO4 - Total orthophosphate
- F TOT P - Dissolved total phosphorus
- U TOT P - Total Phosphorus

TABLE D-5 (CONTINUED)

DATE TIME	SAMP LAB	G.H. OISCH.	TEMP DEPTH	FIELD LABORATORY PH	NUTRIENT ANALYSIS OF SURFACE FIELD					WATER NUTRIENT CONSTITUENTS IN MILLIGRAMS PER LITER									
					TURB	CAC03	P	MC03	NH3	NO2	F	NO3	N	F (NH3)	OIS	F H3PO4	F TOT P	F TOT P	F TOT P
					F-C02	CAC03	T	C03		NO3	U	NO3	N	U	NO3	U			
D0 1100.00 BRANCIFORTE CREEK AT SANTA CRUZ																			
04/10/74	5050		54	F	7.3	259	12A	66		--	--	--	--	--	--	--	0.11	--	--
1500	5050				7.3	265		0	--	0.78	--	--	--	--	--	--	--	--	--
09/19/74	5050		62	F	7.2	300	1A	113		--	--	--	--	--	--	--	0.14	--	--
1530	5050				7.9	370		0	--	0.90	--	--	--	--	--	--	--	--	--
D0 1180.01 SAN LORENZO RIVER AT PARADISE PARK																			
04/10/74	5050		54	F	7.5	295	6A	105		--	--	--	--	--	--	--	0.06	--	--
1420	5050				7.7	293		0	--	0.10	--	--	--	--	--	--	--	--	--
09/19/74	5050		65	F	7.8	360	0A	134		--	--	--	--	--	--	--	0.15	--	--
1430	5050				8.2	358		0	--	0.24	--	--	--	--	--	--	--	--	--
D0 1220.01 ZAYANTE CREEK AT FELTON																			
04/10/74	5050		52	F	7.4	390	8A	121		--	--	--	--	--	--	--	0.15	--	--
1330	5050				7.6	378		0	--	0.22	--	--	--	--	--	--	--	--	--
09/19/74	5050		62	F	7.6	390	0A	133		--	--	--	--	--	--	--	0.40	--	--
1315	5050				8.0	404		0	--	0.57	--	--	--	--	--	--	--	--	--
D0 1498.01 SAN LORENZO RIVER AT BOULDER CREEK																			
04/10/74	5050		50	F	7.5	308	4A	105		--	--	--	--	--	--	--	0.04	--	--
1230	5050				7.6	315		0	--	0.03	--	--	--	--	--	--	--	--	--
09/19/74	5050		72	F	7.6	410	0A	174		--	--	--	--	--	--	--	0.06	--	--
1200	5050				8.0	474		0	--	0.04	--	--	--	--	--	--	--	--	--
D0 2020.00 APTOS CREEK BELOW VALENCIA CREEK																			
04/10/74	5050		52	F	7.8	405	15A	150		--	--	--	--	--	--	--	0.08	--	--
1610	5050				7.9	420		0	--	0.08	--	--	--	--	--	--	--	--	--
09/19/74	5050		60	F	7.6	660	2A	272		--	--	--	--	--	--	--	0.13	--	--
1635	5050				8.3	767		0	--	0.16	--	--	--	--	--	--	--	--	--
D0 3100.00 SOQUEL CREEK AT SOQUEL																			
04/10/74	5050		3.48	56	F	7.6	480	3A	166		--	--	--	--	--	--	0.04	--	--
1540	5050				7.8			0	--	0.06	--	--	--	--	--	--	--	--	--
09/19/74	5050		2.40	66	F	8.0	750	0A	242		--	--	--	--	--	--	0.07	--	--
1605	5050				8.2	762		0	--	0.03	--	--	--	--	--	--	--	--	--
D0 4010.01 SCOTT CREEK AT HIGHWAY 1																			
04/10/74	5050		51	F	7.0	295	10A	64		--	--	--	--	--	--	--	0.03	--	--
1030	5050				7.1	253		0	--	0.18	--	--	--	--	--	--	--	--	--
09/19/74	5050		66	F	7.2	395	0A	95		--	--	--	--	--	--	--	0.10	--	--
1035	5050				7.5	431		0	--	0.03	--	--	--	--	--	--	--	--	--
D2 1011.50 SALINAS RECLAMATION CANAL AT PRESTON STREET																			
05/07/74	5050								3.0	4.8	--	--	--	--	--	--	--	--	--
1120	5050										--	--	--	--	--	--	--	--	--
D2 1110.50 SALINAS RIVER AT TWIN BRIDGES																			
10/31/73	5050		59.5F	7.8		690			0.32	0.3	--	--	--	--	--	--	1.8	--	--
0815	5050								0.14	1.9	--	--	--	--	--	--	--	1.8	--
D2 1110.70 SALINAS RIVER 1.9 MILES ABOVE HIGHWAY 1 BRIDGE																			
10/31/73	5050		58.5F	7.6		650			0.46	0.3	--	--	--	--	--	--	0.75	--	--
0800	5050								3.3	--	--	--	--	--	--	--	--	1.8	--
D2 1120.50 SALINAS RIVER AT BLANCO DRAIN																			
10/31/73	5050		57	F	7.3				0.45	0.3	--	--	--	--	--	--	1.7	--	--
0800	5050								3.1	--	--	--	--	--	--	--	--	1.7	--
D2 1150.30 SALINAS RIVER AT BLANCO ROAD																			
10/31/73	5050		57	F	7.4	650			0.52	0.2	--	--	--	--	--	--	2.2	--	--
0815	5050								4.2	--	--	--	--	--	--	--	--	2.3	--
D2 1160.20 SALINAS RIVER AT DAVIS ROAD																			
10/31/73	5050		58.0F	7.7		500			0.05	0.3	--	--	--	--	--	--	1.2	--	--
0830	5050								1.2	--	--	--	--	--	--	--	--	1.3	--
D2 1255.50 ALISAL CREEK AT OLD STAGE ROAD																			
05/07/74	5050								0.02	1.0	--	--	--	--	--	--	--	--	--
1040	5050										--	--	--	--	--	--	--	--	--
D2 1261.50 GABILAN CREEK AT NATIVIDAD BRIDGE CROSSING																			
05/07/74	5050								0.02	0.87	--	--	--	--	--	--	--	--	--
1010	5050										--	--	--	--	--	--	--	--	--
D2 1264.50 NATIVIDAD CREEK AT EAST LAUREL DRIVE																			
05/07/74	5050								0.02	0.72	--	--	--	--	--	--	--	--	--
1115	5050										--	--	--	--	--	--	--	--	--
D2 1266.50 NATIVIDAD DRAINAGE AT OLD STAGE ROAD																			
05/07/74	5050										--	--	--	--	--	--	--	--	--
1035	5050								0.27	2.2	--	--	--	--	--	--	--	--	--



TABLE D-5 (CONTINUED)

DATE TIME	SAMP LAB	G.M. DISCH.	TEMP DEPTH	FIELD LABORATORY PH	EC	NUTRIENT ANALYSIS OF SURFACE WATER										NUTRIENT CONSTITUENTS IN MILLIGRAMS PER LITER					
						TURB F-CO2	CACO3 P CACU3 T	HCO3 CO3	NH3	NO2 NO3	F ORG N U ORG N	F (NH3) U ORG N	O15 A.H2PO4	F H3PO4 U H3PO4	F TOT P U TOT P						
En B 735.0 215.0 SAN FRANCISCO BAY AT SAN MATEO BRIDGE (SHIP CHANNEL)																					
10/15/73 0920	5050 5050		64	F	7.9	47000 46800	2A			0.02	-- 0.44	-- 0.1	-- 0.12	0.10	0.40 --	-- 0.52					
11/13/73 1040	5050 5050		59	F	8.0	46000 46100	6A			0.00	-- 0.31	-- 0.3	-- 0.3	0.00	0.22 --	-- 0.25					
12/17/73 1420	5050 5050		53	F	7.9	33000 32600	10A			0.00	-- 0.42	-- 0.2	-- 0.2	0.01	0.18 --	-- 0.24					
01/14/74 1200	5050 5050		49	F	7.7	30500 30400	11A			0.12	-- 0.55	-- 0.1	-- 0.22	0.09	0.23 --	-- 0.33					
02/27/74 1125	5050 5050		54	F	8.0	29000	10A			0.04	-- 0.41	-- 0.1	-- 0.14	0.04	0.21 --	-- 0.30					
03/27/74 1020	5050 5050		57	F	8.0	30500 29100	8A			0.06	-- 0.30	-- 0.1	-- 0.16	0.04	0.23 --	-- 0.27					
04/24/74 1015	5050 5050		58	F	8.1	26200 26600	11A			0.06	-- 0.01	-- 0.2	-- 0.26	0.03	0.19 --	-- 0.29					
05/23/74 0915	5050 5050		61	F	7.9	31800 34500	4A			0.07	-- 0.28	-- 0.4	-- 0.47	0.06	0.24 --	-- 0.36					
06/20/74 0745	5050 5050		68	F	7.9	35500 36800	11A			0.05	-- 0.45	-- 0.3	-- 0.35	0.11	0.34 --	-- 0.46					
07/19/74 0745	5050 5050		64	F	8.0	37200 39200	5A			0.04	-- 0.58	-- 0.2	-- 0.24	0.08	0.50 --	-- 0.58					
08/20/74 0935	5050 5050		70	F	8.0	39500 40800	6A			0.02	-- 0.73	-- 0.2	-- 0.22	0.02	0.41 --	-- 0.56					
09/17/74 0900	5050 5050		67	F	8.1	42100 41700	5A			0.00	-- 0.53	-- 0.4	-- 0.4	0.04	0.44 --	-- 0.56					
E0 R 736.2 212.0 SAN FRANCISCO BAY AT SAN MATEO BRIDGE (PIER 662)																					
10/15/73 1000	5050 5050		63	F	7.9	47000 46900	2A			0.01	-- 0.47	-- 0.2	-- 0.21	0.07	0.50 --	-- 0.66					
11/13/73 1120	5050 5050		58	F	7.9	46000 46100	9A			0.00	-- 0.31	-- 0.2	-- 0.2	0.00	0.24 --	-- 0.27					
12/17/73 1445	5050 5050		53	F	7.9	33000 32400	7A			0.00	-- 0.42	-- 0.2	-- 0.2	0.00	0.19 --	-- 0.33					
01/14/74 1230	5050 5050		49	F	7.7	30500 30600	12A			0.04	-- 0.56	-- 0.2	-- 0.24	0.10	0.22 --	-- 0.32					
02/27/74 1220	5050 5050		54	F	8.0	28500	15A			0.02	-- 0.41	-- 0.1	-- 0.12	0.02	0.20 --	-- 0.35					
03/27/74 1100	5050 5050		57	F	8.0	30500 28600	8A			0.03	-- 0.33	-- 0.2	-- 0.23	0.03	0.24 --	-- 0.28					
04/24/74 1100	5050 5050		58	F	8.1	25200 25500	8A			0.02	-- 0.33	-- 0.0	-- 0.02	0.03	0.22 --	-- 0.26					
05/23/74 1000	5050 5050		62	F	8.2	33000 35900	2A			0.01	-- 0.02	-- 0.1	-- 0.11	0.06	0.13 --	-- 0.19					
06/20/74 0845	5050 5050		68	F	8.0	35800 37200	20A			0.03	-- 0.36	-- 0.2	-- 0.23	0.09	0.28 --	-- 0.42					
07/19/74 0830	5050 5050		68	F	8.0	38400 40200	16A			0.02	-- 0.44	-- 0.2	-- 0.22	0.04	0.38 --	-- 0.47					
08/20/74 1030	5050 5050		70	F	8.0	39700 41000	36A			0.00	-- 0.74	-- 0.4	-- 0.4	0.08	0.40 --	-- 0.67					
09/17/74 0940	5050 5050		68	F	8.0	41300 41900	20A			0.00	-- 0.49	-- 0.5	-- 0.5	0.04	0.34 --	-- 0.57					
E0 B 749.2 222.4 SAN FRANCISCO BAY AT TREASURE ISLAND																					
10/15/73 0800	5050 5050		60	F	8.0	45000 46100	3A			0.03	-- 0.21	-- 0.2	-- 0.23	0.07	0.05 --	-- 0.12					
11/13/73 0915	5050 5050		57	F	7.9	46000 45000	13A			0.11	-- 0.27	-- 0.2	-- 0.31	0.00	0.12 --	-- 0.22					
12/17/73 1245	5050 5050		52	F	7.9	32000 32300	7A			0.01	-- 0.28	-- 0.2	-- 0.21	0.01	0.08 --	-- 0.19					
01/14/74 1045	5050 5050		49	F	7.8	29000 30600	9A			0.04	-- 0.31	-- 0.2	-- 0.24	0.04	0.08 --	-- 0.13					
02/27/74 1000	5050 5050		52	F	8.0	34000	5A			0.02	-- 0.25	-- 0.1	-- 0.12	0.03	0.08 --	-- 0.12					
03/27/74 0900	5050 5050		54	F	8.0	33100 31000	5A			0.00	-- 0.17	-- 0.2	-- 0.2	0.07	0.06 --	-- 0.14					
04/24/74 0830	5050 5050		54.5	F	7.9	33500 34400	9A			0.05	-- 0.27	-- 0.2	-- 0.25	0.02	0.08 --	-- 0.20					
05/23/74 0745	5050 5050		58	F	7.9	36000 40600	7A			0.02	-- 0.25	-- 0.1	-- 0.12	0.04	0.10 --	-- 0.14					
06/20/74 0625	5050 5050		61	F	8.0	37300 43000	15A			0.01	-- 0.26	-- 0.1	-- 0.11	0.06	0.08 --	-- 0.14					
07/19/74 0630	5050 5050		64	F	8.0	40500 43200	3A			0.04	-- 0.21	-- 0.1	-- 0.14	0.04	0.10 --	-- 0.20					
08/20/74 0810	5050 5050		65	F	8.0	43000 43500	4A			0.00	-- 0.28	-- 0.1	-- 0.1	0.02	0.09 --	-- 0.12					
09/17/74 0720	5050 5050		63	F	8.0	40700 41700	3A			0.00	-- 0.24	-- 0.3	-- 0.3	0.04	0.07 --	-- 0.14					

TABLE D-5 (CONTINUED)

NUTRIENT ANALYSIS OF SURFACE WATER															
DATE TIME	SAMP LAB	O.H. DISCH.	TEMP DEPTH	FIELD		FIELD		LAB		NUTRIENT		CONSTITUENTS IN MILLIGRAMS PER LITER			
				LABORATORY PH	EC	TURB F-CO2	CACU3 CACO3 T	NO2 NO3	NH3	F ORG N U ORG N	F (NH3 + U ORG N)	DIS A.M.P04	F H3PO4 U H3PO4	F TOT P U TOT P	
E0 B 801.8 222.3 SAN PABLO BAY NEAR PINOLE POINT															
10/03/73	5001		19.C	7.9	33550	34F		120		--	--	0.0		0.13	--
0905	5001		3	7.8	36900			0	0.09	0.26		--	--	--	0.16
E0 B 802.7 207.0 SUISUN BAY OFF BULLS HEAD POINT NEAR MARTINEZ															
10/03/73	5001		19.C	8.0	16400	184F		100		--	0.21	0.3		0.12	--
1040	5001		3	7.9	15800			0	0.09	0.26	0.33	0.42	--	--	0.18
10/31/73	5001		16.C	7.8	15950	144F		97		--	0.34	0.5		0.10	--
0735	5001		3	7.8	18000			0	0.16	0.31	0.42	0.58	--	--	0.14
12/05/73	5001		11 C	7.1	3790	244F		61		--	0.47	0.54		0.05	--
1230	5001		3	7.9	4140			0	0.07	0.22	0.53	0.60	--	--	0.09
01/16/74	5001		8.C	7.7	7060	194F		76		--	0.22	0.3		0.06	--
0810	5001		3	7.8	2340			0	0.08	0.33	0.28	0.36	--	--	0.08
02/15/74	5001		10.C	7.7	3650	424F		70		--	0.21	0.3		0.05	--
1015	5001		3	8.0	3900			0	0.09	0.25	0.27	0.36	--	--	0.08
03/20/74	5001		13.C	8.0	5535	294F				--	0.53	0.6		0.05	--
1210	5001		3						0.07	0.19	0.61	0.68	--	--	0.08
04/03/74	5001		15 C	7.6	153	744F				--	0.06	0.1		0.04	--
1130	5001		3						0.04	0.13	0.16	0.20	--	--	0.13
04/18/74	5001		14 C	7.7	2020	394F				--	0.25	0.3		0.05	--
1205	5001		3						0.05	0.15	0.33	0.38	--	--	0.18
05/01/74	5001		16 C	7.6	9130	234F				--	0.12	0.2		0.06	--
1115	5001		3						0.08	0.18	0.18	0.26	--	--	0.09
05/15/74	5001		16 C	7.7	9690	214F				--	0.23	0.3		0.06	--
0950	5001		3						0.07	0.12	0.31	0.38	--	--	0.10
06/13/74	5001		19 C	7.9	8370	264F				--	0.27	0.3		0.07	--
0930	5001		3						0.03	0.09	0.41	0.44	--	--	0.12
06/27/74	5001		20 C	7.7	11800	144F				--	0.24	0.3		0.07	--
0930	5001		3						0.06	0.12	0.28	0.34	--	--	0.11
07/11/74	5001		19 C	7.9	13900	124F				--	0.24	0.3		0.08	--
0730	5001		3						0.06	0.20	0.32	0.38	--	--	0.11
07/25/74	5001		22 C	7.8	17700	94F		82		--	0.35	0.4		0.06	--
0800	5001		3					0	0.05	0.15	0.41	0.46	--	--	0.08
08/14/74	5001		20 C	8.0	16400	244F		84		--	0.17	0.2		0.07	--
1230	5001		3					0	0.03	0.16	0.37	0.40	--	--	0.14
08/28/74	5001		21.C	8.1	12400	334F		82		--	0.08	0.1		0.07	--
1240	5001		3					0	0.02	0.15	0.36	0.38	--	--	0.16
09/11/74	5001		21 C	8.0	10600	174F		80		--	0.14	0.2		0.08	--
1245	5001		3					0	0.06	0.19	0.34	0.40	--	--	0.15
09/25/74	5001		18 C	7.9	9800	174F		84		--	0.21	0.3		0.08	--
1135	5001		3					0	0.09	0.17	0.31	0.40	--	--	0.12
E0 B 802.8 155.0 SACRAMENTO RIVER AT CHIPPS ISLAND															
10/03/73	5001		19.C	8.0	1390	854F		85		--	0.31	0.4		0.10	--
1135	5001		3	8.1	1480			0	0.09	0.25	0.49	0.58	--	--	0.18
10/31/73	5001		17.C	7.4	1552	324F		70		--	0.22	0.3		0.08	--
0900	5001		3	7.9	1570			0	0.08	0.24	0.36	0.44	--	--	0.15
12/05/73	5001		10.C	6.9	137	444F		58		--	0.18	0.22		0.05	--
1405	5001		3	7.8	140			0	0.04	0.19	0.16	0.20	--	--	0.10
01/16/74	5001		9.C	7.6	181	224F		67		--	0.26	0.3		0.05	--
0910	5001		3	7.8	215			0	0.04	0.35	0.32	0.36	--	--	0.08
02/15/74	5001		9.C	7.6	165	484F		68		--	0.26	0.3		0.05	--
1115	5001		3	8.1	165			0	0.04	0.23	0.32	0.36	--	--	0.10
03/20/74	5001		14.C	7.9	156	294F				--	0.17	0.2		0.03	--
1400	5001		3						0.03	0.17	0.27	0.30	--	--	0.09
04/03/74	5001		13 C	7.6	125	1324F				--	0.17	0.2		0.03	--
1305	5001		3						0.03	0.11	0.33	0.36	--	--	0.19
04/18/74	5001		15 C	7.6	144	324F				--	0.17	0.2		0.04	--
1325	5001		3						0.03	0.14	0.25	0.28	--	--	0.09
05/01/74	5001		16 C	7.6	171	274F				--	0.07	0.1		0.04	--
1245	5001		3						0.03	0.15	0.17	0.20	--	--	0.11
05/15/74	5001		18 C	7.9	182	294F				--	0.17	0.2		0.04	--
1105	5001		3						0.03	0.05	0.33	0.36	--	--	0.12
06/13/74	5001		20 C	8.1	318	354F				--	0.39	0.4		0.05	--
1045	5001		3						0.01	0.03	0.59	0.60	--	--	0.13
06/27/74	5001		20 C	7.9	1040	484F				--	0.39	0.4		0.06	--
1040	5001		3						0.01	0.10	0.51	0.52	--	--	0.13
07/11/74	5001		20 C	7.8	2690	334F				--	0.17	0.2		0.05	--
0855	5001		3						0.03	0.13	0.29	0.32	--	--	0.12
07/25/74	5001		23 C	7.8	2850	524F		64		--	0.37	0.4		0.05	--
0915	5001		3					0	0.03	0.19	0.51	0.54	--	--	0.11
08/14/74	5001		21 C	7.9	2120	414F		66		--	0.26	0.3		0.06	--
1345	5001		3					0	0.04	0.19	0.42	0.46	--	--	0.14
08/28/74	5001		21.C	7.9	1130	544F		66		--	0.17	0.2		0.06	--
1345	5001		3					0	0.03	0.17	0.27	0.30	--	--	0.15
09/11/74	5001		22 C	8.0	336	264F		70		--	0.37	0.4		0.05	--
1405	5001		3					0	0.03	0.10	0.51	0.54	--	--	0.14



TABLE D-5 (CONTINUED)

DATE TIME	SAMP LAB	G.H. DISCH.	TEMP DEPTH	NUTRIENT ANALYSIS OF SURFACE WATER										NUTRIENT CONSTITUENTS IN MILLIGRAMS PER LITER																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																	
				FIELD LABORATORY		FIELD TURH		FIELD CAC03		FIELD P		FIELD HCO3		FIELD NO2		FIELD F		FIELD OR0		FIELD N		FIELD F (NH3 +		FIELD DIS		FIELD F H3PO4		FIELD F TOT P																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																			
				PH	EC	F-CO2	CAC03	T	CO3	NH3	NO3	U	OR0	N	F (NH3 +	U	OR0	N	F (NH3 +	U	OR0	N	F (NH3 +	U	OR0	N	F (NH3 +	U	OR0	N	F (NH3 +	U	OR0	N	F (NH3 +	U	OR0	N	F (NH3 +	U	OR0	N	F (NH3 +	U	OR0	N	F (NH3 +	U	OR0	N	F (NH3 +	U	OR0	N	F (NH3 +	U	OR0	N	F (NH3 +	U	OR0	N	F (NH3 +	U	OR0	N	F (NH3 +	U	OR0	N	F (NH3 +	U	OR0	N	F (NH3 +	U	OR0	N	F (NH3 +	U	OR0	N	F (NH3 +	U	OR0	N	F (NH3 +	U	OR0	N	F (NH3 +	U	OR0	N	F (NH3 +	U	OR0	N	F (NH3 +	U	OR0	N	F (NH3 +	U	OR0	N	F (NH3 +	U	OR0	N	F (NH3 +	U	OR0	N	F (NH3 +	U	OR0	N	F (NH3 +	U	OR0	N	F (NH3 +	U	OR0	N	F (NH3 +	U	OR0	N	F (NH3 +	U	OR0	N	F (NH3 +	U	OR0	N	F (NH3 +	U	OR0	N	F (NH3 +	U	OR0	N	F (NH3 +	U	OR0	N	F (NH3 +	U	OR0	N	F (NH3 +	U	OR0	N	F (NH3 +	U	OR0	N	F (NH3 +	U	OR0	N	F (NH3 +	U	OR0	N	F (NH3 +	U	OR0	N	F (NH3 +	U	OR0	N	F (NH3 +	U	OR0	N	F (NH3 +	U	OR0	N	F (NH3 +	U	OR0	N	F (NH3 +	U	OR0	N	F (NH3 +	U	OR0	N	F (NH3 +	U	OR0	N	F (NH3 +	U	OR0	N	F (NH3 +	U	OR0	N	F (NH3 +	U	OR0	N	F (NH3 +	U	OR0	N	F (NH3 +	U	OR0	N	F (NH3 +	U	OR0	N	F (NH3 +	U	OR0	N	F (NH3 +	U	OR0	N	F (NH3 +	U	OR0	N	F (NH3 +	U	OR0	N	F (NH3 +	U	OR0	N	F (NH3 +	U	OR0	N	F (NH3 +	U	OR0	N	F (NH3 +	U	OR0	N	F (NH3 +	U	OR0	N	F (NH3 +	U	OR0	N	F (NH3 +	U	OR0	N	F (NH3 +	U	OR0	N	F (NH3 +	U	OR0	N	F (NH3 +	U	OR0	N	F (NH3 +	U	OR0	N	F (NH3 +	U	OR0	N	F (NH3 +	U	OR0	N	F (NH3 +	U	OR0	N	F (NH3 +	U	OR0	N	F (NH3 +	U	OR0	N	F (NH3 +	U	OR0	N	F (NH3 +	U	OR0	N	F (NH3 +	U	OR0	N	F (NH3 +	U	OR0	N	F (NH3 +	U	OR0	N	F (NH3 +	U	OR0	N	F (NH3 +	U	OR0	N	F (NH3 +	U	OR0	N	F (NH3 +	U	OR0	N	F (NH3 +	U	OR0	N	F (NH3 +	U	OR0	N	F (NH3 +	U	OR0	N	F (NH3 +	U	OR0	N	F (NH3 +	U	OR0	N	F (NH3 +	U	OR0	N	F (NH3 +	U	OR0	N	F (NH3 +	U	OR0	N	F (NH3 +	U	OR0	N	F (NH3 +	U	OR0	N	F (NH3 +	U	OR0	N	F (NH3 +	U	OR0	N	F (NH3 +	U	OR0	N	F (NH3 +	U	OR0	N	F (NH3 +	U	OR0	N	F (NH3 +	U	OR0	N	F (NH3 +	U	OR0	N	F (NH3 +	U	OR0	N	F (NH3 +	U	OR0	N	F (NH3 +	U	OR0	N	F (NH3 +	U	OR0	N	F (NH3 +	U	OR0	N	F (NH3 +	U	OR0	N	F (NH3 +	U	OR0	N	F (NH3 +	U	OR0	N	F (NH3 +	U	OR0	N	F (NH3 +	U	OR0	N	F (NH3 +	U	OR0	N	F (NH3 +	U	OR0	N	F (NH3 +	U	OR0	N	F (NH3 +	U	OR0	N	F (NH3 +	U	OR0	N	F (NH3 +	U	OR0	N	F (NH3 +	U	OR0	N	F (NH3 +	U	OR0	N	F (NH3 +	U	OR0	N	F (NH3 +	U	OR0	N	F (NH3 +	U	OR0	N	F (NH3 +	U	OR0	N	F (NH3 +	U	OR0	N	F (NH3 +	U	OR0	N	F (NH3 +	U	OR0	N	F (NH3 +	U	OR0	N	F (NH3 +	U	OR0	N	F (NH3 +	U	OR0	N	F (NH3 +	U	OR0	N	F (NH3 +	U	OR0	N	F (NH3 +	U	OR0	N	F (NH3 +	U	OR0	N	F (NH3 +	U	OR0	N	F (NH3 +	U	OR0	N	F (NH3 +	U	OR0	N	F (NH3 +	U	OR0	N	F (NH3 +	U	OR0	N	F (NH3 +	U	OR0	N	F (NH3 +	U	OR0	N	F (NH3 +	U	OR0	N	F (NH3 +	U	OR0	N	F (NH3 +	U	OR0	N	F (NH3 +	U	OR0	N	F (NH3 +	U	OR0	N	F (NH3 +	U	OR0	N	F (NH3 +	U	OR0	N	F (NH3 +	U	OR0	N	F (NH3 +	U	OR0	N	F (NH3 +	U	OR0	N	F (NH3 +	U	OR0	N	F (NH3 +	U	OR0	N	F (NH3 +	U	OR0	N	F (NH3 +	U	OR0	N	F (NH3 +	U	OR0	N	F (NH3 +	U	OR0	N	F (NH3 +	U	OR0	N	F (NH3 +	U	OR0	N	F (NH3 +	U	OR0	N	F (NH3 +	U	OR0	N	F (NH3 +	U	OR0	N	F (NH3 +	U	OR0	N	F (NH3 +	U	OR0	N	F (NH3 +	U	OR0	N	F (NH3 +	U	OR0	N	F (NH3 +	U	OR0	N	F (NH3 +	U	OR0	N	F (NH3 +	U	OR0	N	F (NH3 +	U	OR0	N	F (NH3 +	U	OR0	N	F (NH3 +	U	OR0	N	F (NH3 +	U	OR0	N	F (NH3 +	U	OR0	N	F (NH3 +	U	OR0	N	F (NH3 +	U	OR0	N	F (NH3 +	U	OR0	N	F (NH3 +	U	OR0	N	F (NH3 +	U	OR0	N	F (NH3 +	U	OR0	N	F (NH3 +	U	OR0	N	F (NH3 +	U	OR0	N	F (NH3 +	U	OR0	N	F (NH3 +	U	OR0	N	F (NH3 +	U	OR0	N	F (NH3 +	U	OR0	N	F (NH3 +	U	OR0	N	F (NH3 +	U	OR0	N	F (NH3 +	U	OR0	N	F (NH3 +	U	OR0	N	F (NH3 +	U	OR0	N	F (NH3 +	U	OR0	N	F (NH3 +	U	OR0	N	F (NH3 +	U	OR0	N	F (NH3 +	U	OR0	N	F (NH3 +	U	OR0	N	F (NH3 +	U	OR0	N	F (NH3 +	U	OR0	N	F (NH3 +	U	OR0	N	F (NH3 +	U	OR0	N	F (NH3 +	U	OR0	N	F (NH3 +	U	OR0	N	F (NH3 +	U	OR0	N	F (NH3 +	U	OR0	N	F (NH3 +	U	OR0	N	F (NH3 +	U	OR0	N	F (NH3 +	U	OR0	N	F (NH3 +	U	OR0	N	F (NH3 +	U	OR0	N	F (NH3 +	U	OR0	N	F (NH3 +	U	OR0	N	F (NH3 +	U	OR0	N	F (NH3 +	U	OR0	N	F (NH3 +	U	OR0	N	F (NH3 +	U	OR0	N	F (NH3 +	U	OR0	N	F (NH3 +	U	OR0	N	F (NH3 +	U	OR0	N	F (NH3 +	U	OR0	N	F (NH3 +	U	OR0	N	F (NH3 +	U	OR0	N	F (NH3 +	U	OR0	N	F (NH3 +	U	OR0	N	F (NH3 +	U	OR0	N	F (NH3 +	U	OR0	N	F (NH3 +	U	OR0	N	F (NH3 +	U	OR0	N	F (NH3 +	U	OR0	N	F (NH3 +	U	OR0	N	F (NH3 +	U	OR0	N	F (NH3 +	U	OR0	N	F (NH3 +	U	OR0	N	F (NH3 +	U	OR0	N	F (NH3 +	U	OR0	N	F (NH3 +	U	OR0	N	F (NH3 +

TABLE D-5 (CONTINUED)

DATE TIME		SAMP LAB	G.M. DISCH.	TEMP DEPTH	FIELD		NUTRIENT ANALYSIS OF SURFACE WATER							CONSTITUENTS IN MILLIGRAMS PER LITER							
					LABORATORY	EC	TURB	CAC03	P	HC03	CO3	NH3	N02	N03	F ORG N	U ORG N	F (NH3 + U ORG N)	OIS A.M.P04	F H3PO4 U H3PO4	F TOT P U TOT P	
E0 B 804.0 203.0					SUISUN BAY NEAR PRESTON POINT										CONTINUED						
09/11/74	5001			22 C	7.9	2250	44AF			70			--	0.18	0.2		--	0.06	--		
1315	5001			3						0	0.02			0.14	0.38	0.40	--	--	0.18		
09/25/74	5001			19 C	7.7	1560	25AF			68			--	0.26	0.3		--	0.06	--		
1155	5001			3						0	0.04			0.12	0.48	0.52	--	--	0.17		
E0 B 804.4 156.2					MONKIE BAY NEAR WHEELER POINT																
10/04/73	5001			19.0C	7.8	1830	50AF			85			--	0.30	0.4		--	0.10	--		
1005	5001			3	8.1	1800				0	0.10			0.26	0.54	0.64	--	--	0.20		
11/01/73	5001			17.0C	7.6	2390	48AF			72			--	0.34	0.4		--	0.09	--		
0835	5001			3	7.7	2570				0	0.06			0.25	0.56	0.62	--	--	0.19		
12/06/73	5001			10.0C	7.1	155	56AF			60			--	0.06	0.1		--	0.05	--		
1120	5001			3	8.0	173				0	0.04			0.19	0.16	0.20	--	--	0.07		
01/17/74	5001			9.0C	7.7	168	23AF			69			--	0.25	0.3		--	0.04	--		
1035	5001			3	8.0	174				0	0.05			0.26	0.29	0.33	--	--	0.09		
02/14/74	5001			9.0C	7.6	146	56AF			69			--	0.25	0.3		--	0.04	--		
0940	5001			3	7.7	161				0	0.05			0.21	0.37	0.42	--	--	0.10		
03/21/74	5001			11.0C	7.6	150	34AF					0.04	--	0.06	0.1		--	0.03	--		
1325	5001			3										0.13	0.14	0.18	--	--	0.11		
04/02/74	5001			12 C	7.7	126	36AF					0.05	--	0.14	0.21	0.26	--	--	0.09		
1045	5001			3													--	--			
04/17/74	5001			15 C	7.4	149	44AF					0.07	--	0.19	0.23	0.3	--	0.04	--		
1115	5001			3											0.33	0.40	--	--	0.10		
04/30/74	5001			16 C	7.6	159	24AF					0.04	--	0.15	0.16	0.2	--	0.04	--		
1005	5001			3											0.26	0.30	--	--	0.08		
05/14/74	5001			17 C	7.8	234	68AF					0.02	--	0.03	0.16	0.2	--	0.04	--		
0905	5001			3											0.48	0.50	--	--	0.16		
06/12/74	5001			20 C	8.3	363	74AF					0.00	--	--	--	0.3	--	0.05	--		
0720	5001			3										0.04	0.68	0.68	--	--	0.24		
06/26/74	5001			20 C	7.8	1050	64AF					0.02	--	0.10	0.30	0.4	--	0.06	--		
0805	5001			3											0.60	0.62	--	--	0.14		
07/10/74	5001			20 C	7.8	4020	46AF					0.04	--	0.15	0.16	0.2	--	0.06	--		
0630	5001			3											0.32	0.36	--	--	0.13		
07/24/74	5001			22 C	7.7	3880	66AF			66		0.05	--	0.20	0.15	0.2	--	0.07	--		
0700	5001			3					9						0.39	0.44	--	--	0.16		
08/13/74	5001			20 C	7.7	3220	58AF			66		0.03	--	0.20	0.47	0.5	--	0.07	--		
1155	5001			3					0						0.71	0.74	--	--	0.16		
08/27/74	5001			21 C	7.7	1510	68AF			70		0.00	--	--	--	0.0	--	0.07	--		
1235	5001			3					0						--	--	--	--	0.19		
09/12/74	5001			22 C	8.0	476	52AF			70		0.02	--	0.08	0.18	0.2	--	0.05	--		
1240	5001			3					0						0.44	0.46	--	--	0.17		
09/24/74	5001			19 C	7.8	213	35AF			72		0.04	--	0.11	0.26	0.3	--	0.06	--		
1045	5001			3					0						0.44	0.48	--	--	0.16		
E0 B 805.3 226.3					SAN PABLO BAY NEAR MOUTH OF PETALUMA RIVER																
10/03/73	5001			17.0C	6.7	30600	10AF			116			--	0.23	0.3		--	0.15	--		
0915	5001			3	7.8	33900				0	0.07			0.18	0.27	0.34	--	--	0.19		
12/05/73	5001			11.0C	7.2	10300	56AF			73			--	0.05	0.16		--	0.08	--		
1035	5001			3	7.5	11500				0	0.11			0.28	0.19	0.30	--	--	0.17		
E0 B 807.0 202.3					GRIZZLY BAY AT DOLPHIN NEAR SUISUN SLOUGH																
10/04/73	5001			18.0C	7.1	5020	45AF			89			--	0.35	0.4		--	0.11	--		
0815	5001			3	7.8	5320				0	0.05			0.21	0.59	0.64	--	--	0.21		
10/31/73	5001			16.0C	7.6	5580	45AF			80			--	0.39	0.5		--	0.08	--		
0655	5001			3	7.6	5900				0	0.11			0.29	0.57	0.68	--	--	0.18		
12/06/73	5001			10.0C	7.1	142	48AF			57		0.06	--	0.18	0.24	0.30	--	0.05	--		
0935	5001			3	7.8	148				0				0.26	0.24	0.30	--	--	0.10		
01/17/74	5001			9.0C	7.7	184	22AF			70			--	0.25	0.3		--	0.04	--		
0915	5001			3	8.0	177				0	0.05			0.25	0.34	0.39	--	--	0.39		
02/14/74	5001			9.0C	7.6	239	62AF			68		0.06	--	0.24	0.3		--	0.05	--		
0905	5001			3	8.1	248				0				0.23	0.38	0.44	--	--	0.10		
03/21/74	5001			14.0C	7.7	155	44AF					0.04	--	0.16	0.2		--	0.03	--		
1250	5001			3											0.32	0.36	--	--	0.12		
04/02/74	5001			13 C	7.5	150	34AF					0.03	--	0.15	0.07	0.1	--	0.04	--		
1015	5001			3											0.13	0.16	--	--	0.10		
04/17/74	5001			15 C	7.3	146	56AF					0.10	--	0.18	0.30	0.4	--	0.05	--		
1040	5001			3											0.44	0.54	--	--	0.13		
04/30/74	5001			16 C	7.7	175	34AF					0.03	--	0.15	0.27	0.3	--	0.04	--		
0930	5001			3											0.39	0.42	--	--	0.10		
05/14/74	5001			16 C	8.0	202	78AF					0.02	--	0.03	0.18	0.2	--	0.04	--		
0835	5001			3											0.52	0.54	--	--	0.18		
06/13/74	5001			19 C	7.9	2350	111AF					0.01	--	0.06	0.39	0.4	--	0.05	--		
0850	5001			3											0.83	0.84	--	--	0.27		
06/27/74	5001			20 C	7.8	2510	86AF					0.04	--	0.12	0.36	0.4	--	0.06	--		
0845	5001			3											0.56	0.60	--	--	0.17		
07/11/74	5001			19 C	7.8	6880	44AF					0.03	--	0.17	0.17	0.2	--	0.06	--		
0640	5001			3											0.31	0.34	--	--	0.14		



TABLE D-5 (CONTINUED)

DATE TIME	SAMP LAB	G.M. DISCH.	TEMP DEPTH	FIELD LABORATORY PH	FIELD EC	NUTRIENT ANALYSIS OF SURFACE WATER					NUTRIENT CONSTITUENTS IN MILLIGRAMS PER LITER					F TOT P			
						TURB F-CO2	CAC03 CAC03	P T	HC03 CO3	NH3	NO2 NO3	F ORG N U ORG N	F NH3 + U ORG N	OIS A.H.P04	F H3PO4 U H3PO4	F TOT P U TOT P			
E0 B 807.0 202.3 GRIZZLY BAY AT DOLPHIN NEAR SUISUN SLOUGH																		CONTINUED	
07/25/74 0715	5001 5001		23 3	C 3	7.8 7600		33AF		70 0	0.02	-- 0.17	0.08 0.30	0.1 0.32	--	0.06 --	--	0.11		
08/14/74 1155	5001 5001		20 3	C 3	8.1 6840		54AF		72 0	0.01	-- 0.10	0.29 0.63	0.3 0.64	--	0.05 --	--	0.16		
08/28/74 1205	5001 5001		20.0 3	C 3	8.1 4260		64AF		70 0	0.03	-- 0.11	0.07 0.39	0.1 0.42	--	0.12 --	--	0.20		
09/12/74 1205	5001 5001		22 3	C 3	7.9 2410		82AF		72 0	0.04	-- 0.13	0.16 0.62	0.2 0.66	--	0.06 --	--	0.25		
09/25/74 1040	5001 5001		18 3	C 3	7.7 947		84AF		112 0	0.06	-- 0.10	0.34 0.62	0.4 0.68	--	0.06 --	--	0.23		
E0 S 809.2 205.3 CORDELIA SLOUGH AT CYGNUS																			
10/25/73 0850	5001 5001		15.0 3	C 7.1	7.1 6700 8490		38AF		104 0	0.39	-- 0.18	1.21 --	1.6 --	--	0.02 --	--	0.20		
11/19/73 1045	5001 5001		12 3	C 7.4	7.4 3400 4590		56AF		88 0	0.30	-- 0.40	0.50 --	0.8 --	--	0.04 --	--	0.18		
12/18/73 1105	5001 5001		9 3	C 7.1	7.1 1830 1000		78AF		69 0	0.14	-- 0.28	-- --	0.4 --	--	0.05 --	--	0.15		
01/15/74 0930	5001 5001		7 3	C 7.3	7.3 1470 1290		55AF		85 0	0.18	-- 0.42	0.62 0.80	0.8 0.98	--	0.03 --	--	0.16		
E0 S 811.8 202.8 SUISUN SLOUGH AT VOLANTI SLOUGH ON JOICE ISLAND																			
10/04/73 0900	5001 5001		16.0 3	C 7.6	7.6 6040 6810		31AF		103 0	0.10	-- 0.14	0.30 --	0.4 --	--	0.07 --	--	0.17		
10/25/73 1245	5001 5001		16.0 3	C 7.6	7.6 5700 7160		72AF		97 0	0.16	-- 0.24	0.54 --	0.7 --	--	0.07 --	--	0.22		
11/19/73 1405	5001 5001		12 3	C 7.4	7.4 3950 5320		72AF		115 0	0.64	-- 0.68	0.76 --	1.4 --	--	0.14 --	--	0.34		
12/06/73 1020	5001 5001		10.0 3	C 6.8	6.8 1920 2000		52AF		79 0	0.36	-- 0.43	-- --	-- --	--	0.06 --	--	0.15		
12/18/73 1445	5001 5001		10 3	C 7.1	7.1 2570		6AF		96 0	0.40	-- 0.63	0.60 --	1.0 --	--	0.08 --	--	0.31		
01/15/74 1250	5001 5001		7 3	C 7.4	7.4 2225 1860		65AF		124 0	--	-- --	-- --	-- --	--	-- --	--	0.10		
02/14/74 0805	5001 5001		9.0 3	C 7.4	7.4 1370 1430		76AF		110 0	0.24	-- 0.46	0.66 0.86	0.9 1.10	--	0.05 --	--	0.19		
03/22/74 1515	5001 5001		14.5 3	C 7.5	7.5 815		58AF		90 0	0.13	-- 0.49	0.27 0.41	0.4 0.54	--	0.04 --	--	0.17		
05/14/74 0845	5001 5001		17 3	C 7.8	7.8 1160		49AF		98 0	0.03	-- 0.43	0.67 1.01	0.7 1.04	--	0.07 --	--	0.20		
06/28/74 0945	5001 5001		22 3	C 8.7	8.7 2500		65AF		90 3	0.02	-- 0.06	0.28 0.58	0.3 0.60	--	0.06 --	--	0.23		
07/25/74 0757	5001 5001		25 3	C 7.6	7.6 5100		32AF		90 0	0.03	-- 0.09	0.37 0.69	0.4 0.72	--	0.06 --	--	0.13		
08/29/74 1335	5001 5001		22 3	C 7.7	7.7 4170		47AF		80 0	0.02	-- 0.07	0.58 0.92	0.6 0.94	--	0.05 --	--	0.16		
E0 S 811.8 204.8 CHADBOURNE SLOUGH AT CHADBOURNE ROAD																			
10/25/73 1125	5001 5001		16.0 3	C 7.6	7.6 5700 7250		80AF		99 0	0.17	-- 0.24	0.43 0.83	0.6 1.00	--	0.06 --	--	0.25		
11/19/73 1305	5001 5001		11 3	C 7.2	7.2 4950 4920		64AF		91 0	0.69	-- 1.14	0.71 1.01	1.4 1.70	--	0.04 --	--	0.23		
12/18/73 1300	5001 5001		10 3	C 7.0	7.0 2630 2440		70AF		93 0	0.45	-- 0.59	0.65 0.87	1.1 1.32	--	0.03 --	--	0.20		
01/15/74 1140	5001 5001		10 3	C 7.4	7.4 1220 1160		80AF		111 0	--	-- --	-- --	-- --	--	-- --	--	0.08		
E0 S 811.2 158.5 MONTEZUMA SLOUGH AT GRIZZLY ISLAND ROAD																			
10/25/73 1340	5001 5001		16.0 3	C 7.6	7.6 5600 7070		39AF		91 0	0.14	-- 0.22	0.36 0.62	0.5 0.76	--	0.06 --	--	0.18		
11/19/73 1455	5001 5001		12 3	C 7.4	7.4 2400 3220		52AF		72 0	0.14	-- 0.31	0.46 0.66	0.7 0.90	--	0.03 --	--	0.14		
12/18/73 1535	5001 5001		9 3	C 7.1	7.1 1100 965		55AF		65 0	0.13	-- 0.23	0.27 0.37	0.4 0.50	--	0.03 --	--	0.13		
01/15/74 1340	5001 5001		7 3	C 7.3	7.3 850 758		38AF		71 0	0.10	-- 0.26	0.40 0.52	0.5 0.82	--	0.03 --	--	0.09		
E0 S 811.5 207.2 CORDELIA SLOUGH AT UPPER END																			
10/25/73 0955	5001 5001		16.0 3	C 8.1	8.1 7.7 811		29AF		169 0	0.11	-- 0.14	0.49 0.69	0.6 0.80	--	0.06 --	--	0.14		
03/05/74 1315	5001 5001		12 3	C 7.6	7.6 980		40AF		120 0	0.04	-- 0.45	0.46 0.62	0.5 0.66	--	0.05 --	--	0.11		
03/22/74 1230	5001 5001		15 3	C 7.8	7.8 810		38AF		160 0	0.33	-- 0.50	0.57 0.69	0.9 1.02	--	0.06 --	--	0.16		
04/18/74 1215	5001 5001		16 3	C 7.4	7.4 750		43AF			0.08	-- 0.70	0.42 0.60	0.5 0.68	--	0.09 --	--	0.15		
05/14/74 1105	5001 5001		17 3	C 8.7	8.7 940		27AF		158 10	0.02	-- 0.03	0.38 0.58	0.4 0.60	--	0.04 --	--	0.18		

TABLE D-5 (CONTINUED)

DATE TIME	SAMP LAB	S.M. DISCH.	TEMP DEPTH	FIELD LABORATORY PH	NUTRIENT ANALYSIS OF SURFACE WATER					NUTRIENT CONSTITUENTS IN MILLIGRAMS PER LITER					F TOT P U TOT P
					TURB	CAC03 P	HC03	NO3	NO2	F ORB N	F (NH3)	DIS	F H3PO4	F TOT P	
				EC	F-C02	CAC03 T	C03	NH3	NO3	U ORB N	U ORB N	A.M.P04	U H3PO4	U TOT P	
E0 S 811.5 207.2 CORDELIA SLOUGH AT UPPER END															
CONTINUED															
06/28/74	5001		21 C	8.9	950	30AF	176	--	--	0.0	--	0.04	--	--	
1145	5001		3				4	0.00	0.04	--	--	--	--	--	0.14
07/25/74	5001		25 C	7.8	1240	23AF	182	--	--	0.79	0.8	--	--	0.17	--
1005	5001		3				0	0.01	0.17	1.41	1.42	--	--	--	0.34
08/29/74	5001		20 C	7.7	1090	45AF	176	--	--	0.67	0.7	--	--	0.03	--
1230	5001		3				0	0.03	0.02	1.33	1.36	--	--	--	0.25
E0 S 813.6 201.2 HILL SLOUGH AT GRIZZLY ISLAND ROAD															
10/25/73	5001		16.0C	7.8	6000	44AF	148	--	--	0.66	1.2	--	--	0.41	--
1410	5001		3	8.0	7570		0	0.54	0.36	1.18	1.72	--	--	--	0.65
11/19/73	5001		10 C	7.4	1190	120AF	107	--	--	0.86	1.3	--	--	0.45	--
1530	5001		3	7.6	1150		0	0.44	0.55	1.24	1.68	--	--	--	0.73
12/18/73	5001		10 C	7.3	3180	55AF	180	--	--	0.77	1.1	--	--	0.26	--
1615	5001		3	7.7	3020		0	0.33	0.91	0.97	1.30	--	--	--	0.55
01/15/74	5001		9 C	7.5	1675	60AF	175	--	--	1.14	1.3	--	--	0.30	--
1420	5001		3	7.6	1520		0	0.16	0.97	1.34	1.5	--	--	--	0.45
E2 E 806.9 230.3 PETALUMA RIVER AT HIGHWAY 37 AT GREEN POINT															
10/19/73	5050		60 F	7.9	36000	15A			0.01	0.2	--	--	--	0.18	--
1000	5050			7.7	36600			0.00	0.18	--	--	--	--	--	0.21
11/26/73	5050		47 F	7.6	16300	23A			0.09	1.0	--	--	--	0.49	--
0845	5050			7.1	16400			0.40	1.8	--	--	--	--	--	0.51
05/22/74	5050		16.9C	7.8	7300	21A			--	0.5	--	--	--	0.26	--
1010	5050				13400			0.03	0.30	--	--	--	--	--	0.42
06/05/74	5052		20.1C	7.8	16000	105A			--	0.2	--	--	--	0.34	--
0640	5050			7.4	22600			0.06	0.13	--	--	--	--	--	0.40
E2 E 809.5 232.5 PETALUMA RIVER BELOW SAN ANTONIO CREEK															
05/22/74	5052		16.6C	7.9	8000	27A			--	0.7	--	--	--	0.40	--
1030	5050				12700			0.09	0.29	--	--	--	--	--	0.61
06/05/74	5052		19.9C	6.8	11000	34A			--	0.3	--	--	--	0.49	--
0705	5050			7.8	19500			0.05	0.28	--	--	--	--	--	0.52
E2 E 809.5 233.0 SAN ANTONIO CREEK NEAR MOUTH															
10/19/73	5050		60 F	7.6	38000	18A			0.02	0.02	0.4	--	--	0.32	--
0920	5050			7.7	38700				0.32	--	--	--	--	--	0.43
11/26/73	5050		48 F	7.3	10500	32A			0.16	0.3	--	--	--	0.89	--
0915	5050			7.0	10100			0.86	1.9	--	--	--	--	--	0.90
05/22/74	5052		16.3C	7.8	8000	27A			--	0.9	--	--	--	0.38	--
0940	5050				17000			0.09	0.29	--	--	--	--	--	0.55
06/05/74	5052		19.3C	7.6	13000	60A			--	0.2	--	--	--	0.46	--
0717	5050			7.5	20400			0.03	0.16	--	--	--	--	--	0.51
E2 E 810.6 224.9 SONOMA CREEK AT CAMP SIX															
05/29/74	5050		71 F	7.8	10850	130A			--	0.4	--	--	--	0.30	--
1330	5050			7.6	11400			0.07	0.14	--	--	--	--	--	0.44
E2 E 811.8 226.1 SONOMA CREEK AT MCGILL															
05/29/74	5050		72 F	7.9	1500	300A			--	0.3	--	--	--	0.33	--
1245	5050			7.9	1610			0.05	0.38	--	--	--	--	--	0.57
E2 E 811.9 232.9 PETALUMA RIVER AT LAKEVILLE															
05/22/74	5052		16.6C	7.8	10200	32A			--	1.1	--	--	--	1.1	--
1050	5050				7640			0.88	0.41	--	--	--	--	--	1.6
06/05/74	5052		19.6C	7.7	10000	34A			--	1.1	--	--	--	0.92	--
0735	5050			7.4	15100			0.10	0.44	--	--	--	--	--	1.1
E2 E 812.3 234.2 PETALUMA RIVER, CUT 8, AT SCHULTZ SLOUGH															
05/22/74	5052		18.2C	7.6	1900	39A			--	1.2	--	--	--	1.1	--
1110	5050				3920			3.7	0.39	--	--	--	--	--	7.2
06/05/74	5052		20.5C	7.7	7000	95A			--	1.1	--	--	--	1.9	--
0750	5050			7.8	10500			0.57	0.44	--	--	--	--	--	2.3
E2 E 813.7 236.7 PETALUMA RIVER AT MCNEAR AT PETALUMA															
10/19/73	5050		62 F	7.8	37000	22A			0.41	0.6	--	--	--	2.0	--
0800	5050			7.7	36700			0.07	0.95	--	--	--	--	--	2.5
11/26/73	5050		40.5F	7.1	1700	36A			0.13	1.6	--	--	--	2.7	--
0945	5050			7.2	1920			2.3	3.1	--	--	--	--	--	2.7
05/22/74	5052		18.6C	7.5	1500	37A			--	1.2	--	--	--	3.2	--
1125	5050				3470			4.4	0.36	--	--	--	--	--	9.5
06/05/74	5052		20.5C	7.6	6100	105A			--	1.1	--	--	--	2.4	--
0810	5050			7.7	9410			0.78	0.44	--	--	--	--	--	2.5
E2 E 814.1 238.1 PETALUMA RIVER AT O STREET IN PETALUMA															
05/22/74	5052		18.6C	7.5	1600	90A			--	1.2	--	--	--	2.5	--
1145	5050				3460			3.6	0.35	--	--	--	--	--	7.4
06/05/74	5052		20.6C	7.7	5300	120A			--	1.2	--	--	--	2.1	--
0810	5050			8.1	9070			0.02	0.44	--	--	--	--	--	3.0



TABLE D-5 (CONTINUED)

DATE TIME	SAMP LAB	G.H. DTSCH.	TEMP DEPTH	LABORATORY PH	FIELD EC	NUTRIENT ANALYSIS OF SURFACE FIELD LAB				WATER NUTRIENT NO2 NO3	CONSTITUENTS IN MILLIGRAMS PER LITER				F TOT P U TOT P	
						TURB	CAC03	P	HC03		F ORG N	F (NH3 + U ORG N)	DIS A.M.P04	F H3P04 U H3P04		
																F-CO2
E2 E 814.7 238.3 PETALUMA RIVER AT WEST PAYRAN ST AT PETALUMA																
10/19/73	5050		60 F	7.6	34000	24A				0.64	0.1	--	--	2.2	--	
0830	5050			7.7	33300				0.05	1.1	--	--	--	--	3.0	
11/26/73	5050		47 F	7.3	750	8A				0.12	2.1	--	--	1.8	--	
1015	5050			7.4	757				2.6	5.0	--	--	--	--	1.8	
E2 5145.01 SAN ANTONIO CREEK ABOVE HIGHWAY 101																
05/22/74	5050		59 F	7.5	646	2A				--	0.8	--	--	0.26	--	
0940	5050				667				0.03	0.96	--	--	--	--	0.32	
06/05/74	5050		69 F	7.7	662	2A				--	0.6	--	--	0.28	--	
1115	5050	0.8		7.9	686				0.03	0.24	--	--	--	--	0.34	
E2 5157.01 ADORE CREEK AT LAKEVILLE ROAD																
05/22/74	5050		61 F	7.8	463	1A				--	0.4	--	--	0.56	--	
1015	5050				492				0.06	0.04	--	--	--	--	0.62	
06/05/74	5050		77 F	8.3	480	1A				--	0.3	--	--	0.02	--	
0900	5050			8.4	504				0.01	0.01	--	--	--	--	0.06	
E2 5207.00 PETALUMA RIVER AT PETALUMA (AT CROWN ROAD)																
05/22/74	5050		61 F	8.1	855	3A				--	0.5	--	--	0.36	--	
0821	5050				890				0.10	0.15	--	--	--	--	0.44	
06/05/74	5050		71 F	7.5	931	3A				--	0.5	--	--	0.59	--	
1030	5050	0.6		7.8	971				0.13	0.13	--	--	--	--	0.64	
E2 5220.01 WILLOW BROOK AT STONY POINT ROAD																
05/22/74	5050		65 F	8.2	756	1A				--	0.5	--	--	0.24	--	
1045	5050				786				0.02	0.03	--	--	--	--	0.29	
06/05/74	5050		70 F	8.0	825	1A				--	0.6	--	--	0.34	--	
1000	5050	0.5		8.0	867				0.02	0.02	--	--	--	--	0.41	
E2 5230.01 PETALUMA RIVER AT OLD REDWOOD HIGHWAY NORTH																
11/26/73	5050		47 F	7.2	675	6A				0.14	2.4	--	--	1.9	--	
1045	5050			7.3	715				2.6	3.4	--	--	--	--	2.0	
E2 5235.01 WILLOW BROOK AT ADOBE ROAD																
05/22/74	5050		70 F	8.1	507	2A				--	0.2	--	--	0.08	--	
1110	5050				529				0.03	0.02	--	--	--	--	0.13	
06/05/74	5050		72 F	8.2	620	2A				--	0.6	--	--	0.68	--	
0930	5050			8.2	649				0.01	0.02	--	--	--	--	0.75	
E2 5261.01 LICHAU CREEK AT RAILROAD AVENUE																
05/22/74	5050		69 F	8.2	615	2A				--	0.6	--	--	0.54	--	
1050	5050				641				0.04	0.02	--	--	--	--	0.67	
E2 6075.01 SONOMA CREEK AT HIGHWAY 121																
05/29/74	5050		67 F	7.5	458	1A				--	0.3	--	--	0.05	--	
1210	5050			7.8	447				0.01	0.52	--	--	--	--	0.06	
E2 6175.01 SONOMA CREEK AT LEVERONI ROAD																
05/29/74	5050		66 F	8.1	333	1A				--	0.2	--	--	0.02	--	
0930	5050			7.9	352				0.01	0.22	--	--	--	--	0.05	
E2 6200.00 SONOMA CREEK AT AGUA CALIENTE																
05/29/74	5050		64 F	7.9	290	1A				--	0.2	--	--	0.03	--	
1000	5050			7.8	300				0.00	0.15	--	--	--	--	0.06	
E2 6635.01 SONOMA CREEK AT HIGHWAY 12 BRIDGE																
05/29/74	5050		61 F	7.8	375	1A				--	0.1	--	--	0.03	--	
1100	5050	2 E		7.9	398				0.00	0.08	--	--	--	--	0.05	
E3 E 809.4 224.3 SONOMA CREEK AT HIGHWAY 37 (SEARS POINT ROAD)																
05/29/74	5050		72 F	7.7	13800	145A				--	0.4	--	--	0.31	--	
1400	5050			7.7	14700				0.06	0.13	--	--	--	--	0.38	
E3 2100.51 GREEN VALLEY CREEK AT CORUELIA																
11/19/73	5001		11 C	7.9	302	32AF				1.06	0.26	0.3	--	0.04	--	
1215	5001			8.1	283				0.04	0	0.30	0.34	--	--	0.08	
12/18/73	5001		10 C	7.3	500	22AF				1.15	0.44	0.5	--	0.17	--	
0950	5001			8.2	505				0.06	0	0.48	0.54	--	--	0.25	
01/15/74	5001		10 C	7.6	305	55AF				1.01	0.45	0.5	--	0.06	--	
1030	5001			7.9	288				0.05	0	0.57	0.62	--	--	0.17	
E4 L 748.1 215.6 LAKE MERRITT AT ROATHOUSE CREEK																
12/17/73	5050		54 F	8.3	7400	2A				--	--	--	--	0.28	--	
1145	5050			7.8	7310				--	0.19	--	2.4	--	--	0.41	
03/27/74	5050		61 F	8.2	8800	1A				--	--	--	--	0.48	--	
1215	5050			8.3	8560				--	0.13	--	0.5	--	--	0.41	
06/20/74	5050		73 F	8.2	32600	6A				--	--	--	--	0.18	--	
1015	5050			6.7	34300				--	0.03	--	2.1	--	--	0.57	
09/17/74	5050		73 F	8.3	39700					--	--	--	--	0.14	--	
1045	5050			7.9	38100				--	0.02	--	0.0	--	--	0.39	

TABLE D-5 (CONTINUED)

DATE TIME		SAMP LAB	G.H. DISCH.	TEMP DEPTH	FIELD		NUTRIENT ANALYSIS OF SURFACE WATER			CONSTITUENTS IN MILLIGRAMS PER LITER										
					LABORATORY PH	EC	TURB F-CO2	CAC03 CAC03	P T	MC03 CO3	NH3	NUTRIENT NO2 NO3	F ORG N U ORG N	F INH3 U ORG N	DIS A.M.P04	F H3PO4 U H3PO4	F TOT P U TOT P			
E5 1427.05 ARROYO VALLE AT N3 HEADQUARTERS																				
03/02/74	5050	7.10			300	75A					--	--	--				0.00	--		
1715	5050				312					0.00	0.16	0.6	0.6	--	--	--	--	0.11		
03/05/74	5050	5.64			350	7A					--	--	--				0.00	--		
1715	5050				371					0.00	0.14	0.2	0.2	--	--	--	--	0.04		
04/08/74	5050				460	1A					--	--	--				0.01	--		
	5050				453					0.00	0.04	0.0	0.0	--	--	--	--	0.01		
04/15/74	5050	4.86			480	2A					--	--	--				0.01	--		
1715	5050				450					0.00	0.02	0.2	0.2	--	--	--	--	0.01		
F8 2100.00 NAVARRO RIVER NEAR NAVARRO																				
05/16/74	5050	2.91	13.0C	7.4		1A					--	--	--				0.02	--		
0800	5050				241						0.00	--	0.0	--	--	--	--	0.03		
F8 3100.00 NOYO RIVER NEAR FORT BRAGG																				
05/15/74	5050		13.5C	7.2		2A					--	--	--				0.01	--		
1330	5050				116						0.00	--	0.0	--	--	--	--	0.02		



## TABLE D-6

### PESTICIDES IN SURFACE WATER

#### Sampler and Lab Agency Codes

5001 - U. S. Bureau of Reclamation  
5050 - Department of Water Resources

#### Abbreviations

TIME - Pacific Standard Time on a 24-hour clock  
TEMP - Water temperature at time of sampling in degrees Fahrenheit (F) and Celsius (C)  
EC - Electrical conductance in micromhos at 25°C  
DO - Dissolved oxygen content in milligrams per liter  
PH - Measure of acidity (<7) or alkalinity (>7) of water  
DEPTH - Depth in feet at which sample was collected  
DISCHARGE - Instantaneous discharge in cubic feet per second

#### Pesticides

##### Chlorinated Hydrocarbons

<u>Code</u>	<u>Most Common Name</u>
ATRAZSIMAZ -	Atrazine and/or Simazine
DACTHAL -	Dacthal
DIFOLATAN -	Difolatan
UNKNOWN -	Complex chlorinated compound mixture as (Reported as DDT), one or more
NONE	
DETECTED -	No detectable amount of Chlorinated Hydrocarbons

##### Organic Phosphorus

BAYTEX -	Baytex, Fenthion
DIAZINON -	Diazinon
DIOXATHION -	Delnav, Dioxathion
PARATHION -	Parathion
NONE	
DETECTED -	No detectable amount of organic phosphorus

TABLE D-6 (CONTINUED)									
DATE TIME	SAMP LAB	TEMP EC	DO PH	G.M. DEP DISCHARGE	PESTICIDES IN SURFACE WATER COMPOUNDS REPORTED IN NANOGRAMS/LITER				
					CHLORINATED HYDROCARBON	ORGANIC PHOSPHORUS	OTHER		
D2 1011.50 SALINAS RECLAMATION CANAL AT PRESTON STREET									
05/07/74 1120	5050 5050				300 DACTHAL	60 UNKNOWN	110 DIOXATHION 590 PARATHION	370 DIAZINON	NONE DETECTED M
D2 1255.50 ALISAL CREEK AT OLD STAGE ROAD									
05/07/74 1045	5050 5050				NONE DETECTED		NONE DETECTED		
D2 1261.50 GABILAN CREEK AT NATIVIDAD BRIDGE CROSSING									
05/07/74 1010	5050 5050				NONE DETECTED		NONE DETECTED		
D2 1264.50 NATIVIDAD CREEK AT EAST LAUREL DRIVE									
05/07/74 1115	5050 5050				270 DACTHAL	90 DIFOLATAN	100 DIOXATHION 200 BAYTEX	30 DIAZINON	
E0 B 735.0 215.0 SAN FRANCISCO BAY AT SAN MATEO BRIDGE (SHIP CHANNEL)									
12/17/73 1420	5050 5050	53 F 33000	8.6 7.9		35 UNKNOWN				
02/27/74 1125	5050 5050	54 F 29000	10.0 8.0		70 UNKNOWN				
04/24/74 1015	5050 5050	58 F 26200	9.2 8.1		NONE DETECTED				
06/20/74 0745	5050 5050	6A F 35500	6.3 7.9		20 UNKNOWN				
E0 B 736.2 212.0 SAN FRANCISCO BAY AT SAN MATEO BRIDGE (PIER 662)									
12/17/73 1445	5050 5050	53 F 33000	9.0 7.9		55 UNKNOWN				
02/27/74 1220	5050 5050	54 F 28500	10.9 8.0		60 UNKNOWN				
04/24/74 1100	5050 5050	58 F 25200	9.8 8.1		NONE DETECTED				
06/20/74 0845	5050 5050	6A F 35800	7.4 8.0		50 UNKNOWN				
08/20/74 1030	5050 5050	70 F 39700	6.3 8.0		50 UNKNOWN				
E0 B 749.2 222.4 SAN FRANCISCO BAY AT TREASURE ISLAND									
12/17/73 1245	5050 5050	52 F 32000	8.8 7.9		25 UNKNOWN				
02/27/74 1000	5050 5050	52 F 34000	9.0 8.0		60 UNKNOWN				
04/24/74 0830	5050 5050	54.5 F 33500	8.1 7.9		NONE DETECTED				
06/20/74 0625	5050 5050	61 F 37300	7.4 8.0		20 UNKNOWN				
08/20/74 0810	5050 5050	65 F 43000	6.4 8.0		45 UNKNOWN				
E0 B 802.7 207.0 SUISUN BAY OFF BULLS HEAD POINT NEAR MARTINEZ									
01/16/74 0810	5001 5050	R C 7080	10.1 7.7		3	85 UNKNOWN			
05/01/74 1115	5001 5050	16 C 9130	8.5 7.6		1	NONE DETECTED			
09/11/74 1245	5001 5050	21 C 10600	8.2 8.0		1	NONE DETECTED			
E0 B 802.8 155.0 SACRAMENTO RIVER AT CHIPPS ISLAND									
01/16/74 0910	5001 5050	9 C 181	10.3 7.6		3	100 UNKNOWN			
05/01/74 1245	5001 5050	16 C 171	9.2 7.6		1	NONE DETECTED			
09/11/74 1405	5001 5050	22 C 336	8.2 8.0		1	NONE DETECTED			
E0 B 803.5 217.0 SAN PABLO BAY NEAR RODEO									
01/16/74 0730	5001 5050	9 C 5480	10.1 7.6		3	110 UNKNOWN			
E0 B 804.0 203.0 SUISUN BAY NEAR PRESTON POINT									
01/16/74 0835	5001 5050	9 C 2370	10.2 7.3		3	85 UNKNOWN			
05/01/74 1140	5001 5050	16 C 1350	9.1 7.7		1	NONE DETECTED			
09/11/74 1315	5001 5050	22 C 2250	8.1 7.9		1	NONE DETECTED			
E0 S 810.8 202.0 SUISUN SLOUGH AT VOLANTI SLOUGH ON JOICE ISLAND									
01/15/74 1250	5001 5050	7 C 2225	8.7 7.4		3	110 UNKNOWN			



TABLE D-6 (CONTINUED)

PESTICIDES IN SURFACE WATER COMPOUNDS REPORTED IN NANOGRAMS/LITER								
DATE	SAMP	TEMP	OO	G.M. DEP	CHLORINATED HYDROCARBON	ORGANIC PHOSPHORUS	OTHER	
TIME	LAB	EC	PH	DISCHARGE				
E4 L 748.1 215.6 LAKE MERRITT AT BOATHOUSE DOCK								
12/17/73	5050	54	F	13.5	80	UNKNOWN	190	ATRAZSIMAZ
1145	5050	7400		8.3				
03/27/74	5050	61	F	7.1	10	DACTHAL	35	UNKNOWN
1215	5050	8800		8.2				
06/20/74	5050	73	F	6.0	390	UNKNOWN		
1015	5050	32600		8.2				
09/17/74	5050	73	F	6.6	NONE	DETECTED		
1045	5050	39700		8.3				
F8 2100.00 NAVARRO RIVER NEAR NAVARRO								
05/16/74	5050	13.0C	10.5	2.91	NONE	DETECTED	NONE	DETECTED
0800	5050		7.4					

TABLE D-7

## DAILY MAXIMUM, MINIMUM, AND AVERAGE SPECIFIC CONDUCTANCE

DO 1180.01 SAN LORENZO RIVER AT PARADISE PARK

(October 1, 1973, through September 30, 1974)

(In Micromhos at 25° C)

Day	October			November			December			January			February			March		
	Max	Min	Avg	Max	Min	Avg	Max	Min	Avg	Max	Min	Avg	Max	Min	Avg	Max	Min	Avg
1	360	355	355	275	265	270	200	155	180	260	255	260	230	225	230	NR	NR	NR
2	355	355	355	265	250	255	225	200	215	265	260	265	230	230	230	NR	NR	NR
3	355	350	350	250	245	245	240	225	235	270	180	235	235	230	235	NR	NR	NR
4	350	350	350	240	235	235	250	240	245	215	180	200	235	235	235	NR	NR	NR
5	350	350	350	235	200	220	250	245	250	230	215	225	235	235	235	NR	NR	NR
6	350	345	350	245	175	210	260	245	255	240	235	240	235	235	235	NR	NR	NR
7	345	280	310	235	215	220	265	260	260	245	240	245	235	235	235	NR	NR	NR
8	345	300	330	245	235	245	270	260	265	250	245	245	235	235	235	NR	NR	NR
9	345	340	340	255	245	250	270	270	270	260	250	255	235	235	235	NR	NR	NR
10	350	340	345	265	250	255	270	270	270	265	260	265	235	235	235	NR	NR	NR
11	350	345	345	265	195	255	270	260	265	270	265	270	240	235	240	NR	NR	NR
12	345	340	340	230	150	195	260	255	260	265	265	265	240	225	235	NR	NR	NR
13	340	330	335	245	205	220	260	225	240	270	270	270	230	225	230	NR	NR	NR
14	330	325	325	240	210	230	240	225	235	270	270	270	235	230	235	NR	NR	NR
15	325	320	320	240	230	235	250	240	245	275	270	275	235	235	235	NR	NR	NR
16	320	315	315	285	200	230	260	250	255	280	215	255	235	235	235	NR	NR	NR
17	315	310	315	235	195	215	260	255	255	290	205	215	235	235	235	NR	NR	NR
18	315	310	310	225	195	215	260	260	260	245	230	240	240	235	235	NR	NR	NR
19	310	305	310	240	225	235	260	260	260	245	240	245	255	170	230	NR	NR	NR
20	315	310	315	245	240	245	265	260	265	255	245	250	255	230	245	NR	NR	NR
21	315	300	305	255	245	250	265	205	230	265	255	260	260	240	250	NR	NR	NR
22	305	275	290	255	250	250	220	195	205	265	265	265	260	240	255	NR	NR	NR
23	300	280	295	260	255	255	240	220	230	265	265	265	260	255	260	NR	NR	NR
24	320	305	315	260	260	260	250	240	245	265	265	265	265	260	265	NR	NR	NR
25	325	320	325	265	260	260	255	250	255	265	255	260	270	265	265	NR	NR	NR
26	330	320	325	265	260	265	260	190	245	255	250	250	270	270	270	NR	NR	NR
27	320	305	310	270	265	270	220	170	195	255	255	255	270	270	270	NR	NR	NR
28	305	295	300	270	270	270	240	170	230	255	250	255	275	250	270	NR	NR	NR
29	300	295	295	275	270	275	250	240	245	250	240	240	NR	NR	NR	NR	NR	NR
30	295	285	290	280	260	270	255	250	250	235	235	235	NR	NR	NR	NR	NR	NR
31	285	275	280	NR	NR	NR	265	255	260	235	235	235	NR	NR	NR	NR	NR	NR

Day	April			May			June			July			August			September		
	Max	Min	Avg	Max	Min	Avg	Max	Min	Avg	Max	Min	Avg	Max	Min	Avg	Max	Min	Avg
1	NR	NR	NR	290	290	290	310	305	305	310	305	310	310	305	305	305	295	300
2	NR	NR	NR	290	290	290	305	305	305	305	305	305	310	300	305	305	295	300
3	NR	NR	NR	290	290	290	305	300	305	305	305	305	305	300	305	300	290	295
4	NR	NR	NR	290	290	290	310	305	305	305	305	305	305	300	305	300	290	295
5	NR	NR	NR	290	290	290	310	305	305	310	305	305	305	300	300	300	290	295
6	NR	NR	NR	295	290	290	310	305	305	305	305	305	305	300	305	295	285	290
7	NR	NR	NR	295	295	295	310	305	305	310	305	305	310	305	305	280	280	280
8	NR	NR	NR	295	295	295	310	300	305	305	250	290	310	300	305	280	250	270
9	NR	NR	NR	295	295	295	305	300	305	280	240	255	310	300	305	260	250	255
10	260	250	255	295	295	295	305	305	305	300	280	295	310	300	305	250	220	225
11	250	245	245	295	295	295	305	305	305	300	300	300	310	305	305	230	220	225
12	250	245	245	295	295	295	310	305	310	305	305	305	310	305	305	230	225	230
13	250	250	250	295	295	295	310	305	305	305	305	305	305	305	305	230	230	230
14	250	250	250	295	295	295	310	310	310	305	305	305	305	305	305	230	230	230
15	250	250	250	305	300	305	310	305	310	300	300	300	305	305	305	230	230	230
16	250	250	250	305	305	305	310	305	305	305	305	305	305	305	305	230	230	230
17	250	250	250	305	305	305	305	305	305	310	305	305	305	305	305	235	230	230
18	250	250	250	305	305	305	310	300	305	305	305	305	310	300	305	235	230	230
19	250	250	250	305	305	305	310	300	305	310	305	305	305	300	300	235	230	230
20	255	250	250	310	305	305	310	310	310	310	305	305	310	300	305	NR	NR	NR
21	255	255	255	310	305	305	310	310	310	310	300	305	310	305	305	NR	NR	NR
22	255	255	255	310	305	305	310	305	310	305	300	300	310	310	310	NR	NR	NR
23	255	245	250	300	300	300	310	305	305	305	300	305	315	310	310	NR	NR	NR
24	280	270	270	300	300	300	310	305	305	305	300	305	320	315	320	NR	NR	NR
25	280	270	280	305	300	300	310	305	310	305	300	300	320	315	320	NR	NR	NR
26	285	280	280	305	300	305	305	305	305	310	305	305	315	315	315	NR	NR	NR
27	285	280	285	305	300	305	305	305	305	310	300	305	315	310	315	270	265	265
28	285	285	285	305	300	300	310	305	305	310	300	305	315	315	315	265	260	265
29	290	285	285	305	300	305	310	305	305	310	300	305	315	310	310	265	260	265
30	290	290	290	310	305	305	305	305	305	310	305	310	315	310	310	265	265	265
31	NR	NR	NR	310	305	310	NR	NR	NR	310	305	305	305	300	305	NR	NR	NR

NR - No Record



TABLE D-7 (Cont.)

## DAILY MAXIMUM, MINIMUM, AND AVERAGE SPECIFIC CONDUCTANCE

F9 1100.00 RUSSIAN RIVER NEAR GUERNEVILLE

(October 1, 1973, through September 30, 1974)

(In Micromhos at 25° C)

Day	October			November			December			January			February			March		
	Max	Min	Avg	Max	Min	Avg	Max	Min	Avg	Max	Min	Avg	Max	Min	Avg	Max	Min	Avg
1	300	290	295	305	295	300	122	98	106	215	160	184	NR	NR	NR	108	90	100
2	290	285	290	310	305	310	165	122	150	184	166	176	NR	NR	NR	133	107	115
3	290	280	285	310	310	310	190	165	180	202	184	194	NR	NR	NR	153	133	143
4	285	275	280	315	57	180	196	185	188	206	202	205	NR	NR	NR	160	153	156
5	285	240	265	280	95	225	194	186	190	202	184	194	NR	NR	NR	167	160	163
6	300	245	265	215	183	205	200	194	196	206	202	205	NR	NR	NR	170	167	168
7	290	255	270	240	171	215	240	200	214	220	206	214	NR	NR	NR	188	170	180
8	285	260	275	220	169	190	255	240	250	220	220	220	NR	NR	NR	208	187	198
9	270	265	265	NR	NR	NR	260	255	255	225	220	225	NR	NR	NR	220	205	215
10	270	265	270	NR	NR	NR	265	260	260	230	225	230	NR	NR	NR	225	220	222
11	265	265	265	NR	NR	NR	265	235	255	235	225	230	NR	NR	NR	222	117	160
12	265	260	265	148	108	128	250	235	245	225	184	206	NR	NR	NR	150	117	135
13	265	260	260	160	128	142	245	180	206	184	168	175	NR	NR	NR	175	150	165
14	260	260	260	166	138	145	210	180	196	174	98	130	NR	NR	NR	190	175	185
15	260	260	260	176	110	158	220	210	215	124	98	110	NR	NR	NR	205	190	195
16	260	260	260	136	108	118	230	220	225	NR	NR	NR	NR	NR	NR	215	205	210
17	260	250	255	144	130	136	230	212	220	NR	NR	NR	NR	NR	NR	225	215	220
18	270	250	265	160	132	148	220	192	202	NR	NR	NR	NR	NR	NR	230	225	230
19	265	260	260	188	160	174	194	192	193	NR	NR	NR	NR	NR	NR	240	230	235
20	260	255	260	198	188	194	195	194	194	NR	NR	NR	170	116	150	250	240	245
21	260	225	255	206	198	202	195	123	148	NR	NR	NR	185	170	180	255	250	250
22	260	140	215	220	206	215	167	123	147	NR	NR	NR	195	185	190	255	255	255
23	240	225	230	225	215	220	184	165	176	NR	NR	NR	210	195	205	260	255	260
24	260	240	250	235	225	230	196	184	190	NR	NR	NR	220	210	215	265	260	260
25	275	260	265	240	235	235	206	196	202	NR	NR	NR	230	220	225	265	250	260
26	280	275	275	245	240	245	210	170	202	NR	NR	NR	240	230	235	265	250	255
27	275	275	275	255	245	250	172	158	164	NR	NR	NR	240	240	240	255	140	205
28	275	270	270	260	255	255	174	163	168	NR	NR	NR	240	90	170	140	120	130
29	275	270	270	260	260	260	180	170	176	NR	NR	NR				148	85	125
30	280	270	275	260	102	205	188	165	177	NR	NR	NR				95	76	85
31	295	280	290				198	188	194	NR	NR	NR				137	95	115

Day	April			May			June			July			August			September		
	Max	Min	Avg	Max	Min	Avg	Max	Min	Avg	Max	Min	Avg	Max	Min	Avg	Max	Min	Avg
1	137	102	117	265	260	265	300	292	294	313	300	308	295	285	290	260	252	256
2	140	105	125	265	265	265	300	298	299	306	292	300	294	280	288	260	250	255
3	160	140	150	265	265	265	300	298	300	305	292	300	290	275	282	260	250	255
4	175	160	168	265	260	265	301	300	300	310	280	292	290	280	285	258	240	250
5	180	175	178	260	250	255	300	295	298	282	273	278	285	275	280	269	240	254
6	195	180	185	255	250	250	298	290	294	280	270	276	280	270	275	265	245	254
7	190	185	185	255	250	250	292	284	289	288	280	284	278	268	272	245	233	240
8	230	190	210	255	250	255	288	284	286	400	260	305	275	260	268	238	232	235
9	235	225	230	255	255	255	287	282	285	400	268	302	264	256	260	245	232	235
10	235	230	230	255	252	254	284	280	282	280	276	278	268	260	264	252	245	248
11	245	235	240	258	252	255	320	280	295	296	280	288	268	260	264	255	249	252
12	250	245	250	275	258	266	310	283	292	304	296	300	270	260	266	258	243	250
13	250	250	250	300	275	290	288	280	282	308	301	304	266	260	264	265	256	260
14	250	230	235	310	300	306	285	280	282	308	300	305	268	255	262	278	265	272
15	230	230	230	320	310	315	290	281	286	306	298	300	261	253	256	278	254	265
16	240	230	235	320	316	318	291	286	289	304	288	290	262	258	260	260	242	252
17	245	240	240	322	318	320	292	290	290	295	283	290	330	262	290	242	228	232
18	245	245	245	320	315	319	295	290	293	295	280	286	268	252	260	252	228	236
19	250	245	250	315	294	306	295	289	291	288	275	282	261	255	258	255	250	252
20	255	250	250	294	288	290	294	286	290	288	276	281	261	251	256	255	250	252
21	255	255	255	290	285	288	295	286	290	290	278	285	260	250	256	255	250	252
22	260	255	255	288	282	285	294	287	290	295	280	288	259	248	254	255	248	252
23	260	260	260	308	277	290	300	290	296	295	285	290	258	248	252	252	248	250
24	260	260	260	279	277	278	304	295	300	295	280	288	255	248	250	250	246	248
25	260	255	260	279	276	276	310	299	302	290	281	287	250	238	242	250	242	246
26	260	255	255	276	275	276	309	295	302	294	280	288	255	248	251	250	245	248
27	255	255	255	278	276	277	310	298	302	290	280	286	256	242	249	250	246	248
28	260	255	260	278	276	277	312	304	310	292	280	286	254	246	250	250	248	250
29	260	260	260	280	274	278	312	300	308	295	285	290	252	247	250	250	248	250
30	260	260	260	285	280	282	314	302	308	298	285	292	252	250	250	250	245	248
31				292	285	288				295	285	290	258	252	255			

NR - No Record

TABLE D-8

## PHYTOPLANKTON ANALYSIS OF SURFACE WATER

Codes and AbbreviationsTotal - Total phytoplankton per milliliterBl-Gr - Blue-Green AlgaeGreen - Green AlgaeFlag - FlagellatesC/P - Centric over PennateSamp - 5050 - Department of Water ResourcesLab - 5050 - Department of Water Resources  
LaboratoryMost Abundant PhytoplanktonBlue-Green Algae

B 52 Aphanizomenon

FlagellatesF 02 Carteria  
F 08 Trachelomonas  
F 55 Ceratium  
F 56 Cryptomonas  
F 99 UnidentifiedDiatomsCentricD 01 Biddulphia  
D 02 Coscinodiscus  
D 03 Cyclotella  
D 04 Melosira (salt water)  
D 07 Rhizosolenia  
D 08 Skeletonema  
D 16 Stephanopyxis  
D 20 LeptocylindrusPennateD 57 Cocconeis  
D 59 Cymbella  
D 60 Diatoma  
D 61 Diploneis  
D 64 Gyrosigma  
D 65 Navicula  
D 66 Nitzschia  
D 69 Surirella  
D 70 Synedra  
D 71 Tabellaria  
D 85 Meridion



TABLE D-8 (Cont.)

## PHYTOPLANKTON ANALYSIS OF SURFACE WATER

Station Number	Station	Date Time	Phytoplankton (number per milliliter)					Most Abundant Phytoplankton (genus / %)						Samp	Lab
			Total	Bl-Gr	Green	Flag	Diatoms C/P	1	2	3	4	5	6		
EO B 735.0 215.0	SAN FRANCISCO BAY AT SAN MATEO BRIDGE (SHIP CHANNEL)	10-15-73 0920	131				93	$\frac{19}{19}$	$\frac{F 99}{71.0}$	$\frac{D 02}{14.5}$	$\frac{D 65}{14.5}$			5050	5050
		11-13-73 1040	48			*		$\frac{24}{24}$	$\frac{D 02}{50.0}$	$\frac{D 70}{50.0}$	$\frac{D 03}{*}$	$\frac{D 61}{*}$	$\frac{F 08}{*}$	5050	5050
		12-17-73 1420	678	*			557	$\frac{0}{121}$	$\frac{F 99}{50.2}$	$\frac{F 56}{17.7}$	$\frac{F 08}{14.3}$	$\frac{D 65}{14.3}$	$\frac{D 59}{3.5}$	5050	5050
		01-14-74 1200	194				170	$\frac{*}{24}$	$\frac{F 99}{87.6}$	$\frac{D 59}{12.4}$	$\frac{D 04}{*}$	$\frac{D 07}{*}$	$\frac{D 64}{*}$	5050	5050
		02-27-74 1125	289				49	$\frac{192}{48}$	$\frac{D 08}{41.5}$	$\frac{F 08}{17.0}$	$\frac{D 04}{8.3}$	$\frac{D 07}{8.3}$	$\frac{D 57}{8.3}$	5050	5050
		03-27-74 1120	48					$\frac{24}{24}$	$\frac{D 20}{50.0}$	$\frac{D 65}{50.0}$				5050	5050
		04-24-74 1015	3					$\frac{3}{0}$	$\frac{D 02}{100}$					5050	5050
		05-23-74 0915	271				242	$\frac{29}{0}$	$\frac{F 99}{62.7}$	$\frac{F 08}{26.6}$	$\frac{D 02}{10.7}$	$\frac{D 04}{*}$		5050	5050
		06-20-74 0745	100				100	$\frac{F 99}{100}$						5050	5050
		07-19-74 0745	0					$\frac{0}{*}$	$\frac{D 85}{*}$						
		08-20-74 0935	40				20	$\frac{20}{0}$	$\frac{F 02}{50.0}$	$\frac{D 02}{50.0}$	$\frac{D 04}{*}$			5050	5050
		09-17-74 0900	39					$\frac{39}{0}$	$\frac{D 03}{100}$					5050	5050
DO B 736.2 212.0	SAN FRANCISCO BAY AT SAN MATEO BRIDGE (PIER 662)	10-15-73 1000	224				130	$\frac{0}{94}$	$\frac{F 99}{58.0}$	$\frac{D 64}{16.5}$	$\frac{D 60}{8.5}$	$\frac{D 65}{8.5}$	$\frac{D 70}{8.5}$	5050	5050
		11-13-73 1120	24					$\frac{24}{*}$	$\frac{D 02}{100}$	$\frac{D 03}{*}$	$\frac{D 04}{*}$	$\frac{D 65}{*}$		5050	5050
		12-17-73 1445	655				583	$\frac{24}{48}$	$\frac{F 99}{59.5}$	$\frac{F 08}{18.3}$	$\frac{F 56}{11.1}$	$\frac{D 04}{3.7}$	$\frac{D 60}{3.7}$	5050	5050
		01-14-74 1230	364				340	$\frac{24}{*}$	$\frac{F 99}{93.4}$	$\frac{D 02}{6.6}$	$\frac{D 59}{*}$	$\frac{D 65}{*}$		5050	5050
		02-27-74 1220	922				73	$\frac{800}{49}$	$\frac{D 08}{68.3}$	$\frac{D 20}{18.4}$	$\frac{D 66}{5.3}$	$\frac{F 08}{5.3}$	$\frac{F 99}{2.7}$	5050	5050
		03-27-74 1100	120				120	$\frac{*}{*}$	$\frac{F 08}{100}$	$\frac{D 02}{*}$	$\frac{D 64}{*}$	$\frac{D 65}{*}$		5050	5050
		04-27-74 1100	72				36	$\frac{*}{36}$	$\frac{F 99}{50.0}$	$\frac{D 64}{50.0}$	$\frac{D 02}{*}$	$\frac{D 07}{*}$	$\frac{D 65}{*}$	5050	5050
		05-23-74 1000	586				543	$\frac{29}{14}$	$\frac{F 99}{85.3}$	$\frac{F 56}{7.3}$	$\frac{D 03}{4.9}$	$\frac{D 66}{2.5}$	$\frac{D 59}{*}$	5050	5050
		06-20-74 0845	29				29	$\frac{F 99}{*}$						5050	5050
		07-19-74 0830	40					$\frac{40}{*}$	$\frac{D 02}{50.0}$	$\frac{D 16}{50.0}$	$\frac{D 65}{*}$	$\frac{D 66}{*}$		5050	5050
		08-20-74 1030	78					$\frac{78}{0}$	$\frac{D 02}{50.0}$	$\frac{D 04}{50.0}$				5050	5050
		09-17-74 0940						$\frac{20}{*}$	$\frac{D 02}{100}$	$\frac{D 65}{*}$				5050	5050
DO B 749.2 222.4	SAN FRANCISCO BAY AT TREASURE ISLAND	10-15-73 0800	185				74	$\frac{37}{74}$	$\frac{F 99}{40.0}$	$\frac{D 08}{40.0}$	$\frac{D 03}{20.0}$	$\frac{F 55}{*}$	$\frac{D 65}{*}$	5050	5050
		11-13-73 0915	98				*	$\frac{98}{0}$	$\frac{D 02}{50.0}$	$\frac{D 03}{50.0}$	$\frac{D 01}{*}$	$\frac{D 07}{*}$	$\frac{D 08}{*}$	5050	5050
		12-17-73 1245	567	150			219	$\frac{150}{48}$	$\frac{F 99}{30.0}$	$\frac{B 52}{26.4}$	$\frac{D 03}{26.4}$	$\frac{F 56}{8.6}$	$\frac{D 65}{4.3}$	5050	5050
		01-14-74 1045	24				24	$\frac{*}{*}$	$\frac{F 56}{100}$	$\frac{B 52}{100}$	$\frac{D 02}{*}$	$\frac{D 65}{*}$		5050	5050
		02-27-74 1000	219				146	$\frac{73}{0}$	$\frac{F 56}{44.3}$	$\frac{D 20}{33.3}$	$\frac{F 08}{22.4}$	$\frac{D 08}{*}$		5050	5050
		03-27-74 0900	73					$\frac{73}{0}$	$\frac{D 02}{100}$	$\frac{D 08}{*}$				5050	5050
		04-24-74 0830	12					$\frac{12}{0}$	$\frac{D 02}{50.0}$	$\frac{D 07}{50.0}$	$\frac{D 08}{*}$			5050	5050
		05-23-74 0745	43				14	$\frac{29}{0}$	$\frac{D 02}{67.4}$	$\frac{F 99}{32.6}$	$\frac{D 08}{*}$			5050	5050
		06-20-74 0625	28					$\frac{14}{14}$	$\frac{D 02}{50.0}$	$\frac{D 66}{50.0}$				5050	5050
		07-19-74 0630	0					$\frac{*}{0}$	$\frac{D 02}{*}$					5050	5050
		08-20-74 0810	118				78	$\frac{20}{20}$	$\frac{F 99}{66.2}$	$\frac{D 02}{16.9}$	$\frac{D 65}{16.9}$	$\frac{D 64}{*}$	$\frac{D 66}{*}$	5050	5050
		09-17-74 0720	20					$\frac{*}{20}$	$\frac{D 65}{100}$	$\frac{D 02}{*}$				5050	5050

\* = Trace

## APPENDIX E

### GROUND WATER QUALITY DATA

This appendix presents ground water quality data collected during the period from October 1, 1973, through September 30, 1974. The data were collected from a number of major ground water sources in the Central Coastal Area in cooperation with other state, local, and federal agencies. During the 1974 water year, 401 wells were sampled in 30 ground water basins and subbasins or subareas.

At the time of field sampling, pH and temperature measurements are normally made. Comments on current conditions are noted in field books which are available in the files of the Department of Water Resources.

Laboratory analyses of ground waters were performed in accordance with "Standard Methods for the Examination of Water and Wastewater", 13th Edition.

The Region and Basin and State Well Numbering Systems are described in Appendix C, "Ground Water Measurements", on page 19. The locations of the ground water basins and subbasins are shown on Figure C-1, pages 21, 22, and 23.



INDEX TO GROUND WATER QUALITY DATA  
IN THE CENTRAL COASTAL AREA

<u>Number</u>	<u>Name</u>	<u>Page</u>
---------------	-------------	-------------

NORTH COASTAL REGION 1-00.00 (Figure C-1, Page 21)

1-14.00	Potter Valley . . . . .	92, 119
1-15.00	Ukiah Valley . . . . .	92, 119
1-16.00	Sanel Valley . . . . .	92, 119
1-17.00	Alexander Valley . . . . .	92, 119
1-18.00	Santa Rosa Valley	
1-18.01	Santa Rosa Area . . . . .	93, 119
1-19.00	Anderson Valley . . . . .	93
1-20.00	Point Arena . . . . .	94
1-21.00	Fort Bragg Terrace . . . . .	94

SAN FRANCISCO BAY REGION 2-00.00 (Figure C-1, Page 22)

2-01.00	Petaluma Valley . . . . .	95, 119
2-02.00	Napa-Sonoma Valley	
2-02.01	Napa Valley . . . . .	95, 119
2-02.02	Sonoma Valley . . . . .	96, 119
2-03.00	Suisun-Fairfield Valley . . . . .	96, 119
2-04.00	Pittsburg Plain . . . . .	97, 119
2-05.00	Clayton Valley . . . . .	97, 119
2-06.00	Ygnacio Valley . . . . .	97, 119
2-09.00	Santa Clara Valley	
2-09.01	East Bay Area . . . . .	97, 119
2-09.02	South Bay Area . . . . .	99, 119
2-10.00	Livermore Valley . . . . .	108, 120
2-22.00	Half Moon Bay Terrace . . . . .	109, 120
2-24.00	San Gregorio Valley . . . . .	109, 120
2-26.00	Pescadero Valley . . . . .	109, 120
2-80.00	Miscellaneous Area . . . . .	110, 120

CENTRAL COASTAL REGION 3-00.00 (Figure C-1, Page 23)

3-01.00	Soquel Valley . . . . .	111, 121
3-02.00	Pajaro Valley . . . . .	111
3-03.00	Gilroy-Hollister Valley	
3-03.01	South Santa Clara County . . . . .	112
3-04.00	Salinas Valley	
3-04.01	Pressure Area . . . . .	113, 121, 125
3-04.05	Upper Valley Area . . . . .	114, 122, 125
3-07.00	Carmel Valley . . . . .	115, 122
3-26.00	West Santa Cruz Terrace . . . . .	117, 123
3-27.00	Scotts Valley . . . . .	117, 123

TABLE E-1  
MINERAL ANALYSES OF GROUND WATER

Sampler and Lab Agency Codes

2400 - Santa Clara Valley Water District  
5000 - U. S. Geological Survey  
5050 - Department of Water Resources  
5100 - Alameda County Flood Control and Water Conservation District  
5115 - Monterey County Flood Control and Water Conservation District  
5401 - Alameda County Water District  
5701 - California Water Service Company  
5709 - California-American Water Company

Abbreviations

TIME - Pacific Standard Time on a 24-hour clock  
TEMP - Water temperature in degrees Fahrenheit (F) and Celsius (C) at the time of field sampling  
PH - Measure of acidity (<7) or alkalinity (>7) of water  
EC - Electrical conductance in micromhos at 25 C°  
TDS - Gravimetric determination of total dissolved solids at 180° C  
SUM - Total dissolved solids by summation of analyzed constituents  
TH - Total hardness  
NCH - Noncarbonate hardness - any excess of total hardness over total alkalinity  
SAR - Sodium adsorption ratio

Mineral Constituents

B	-	Boron	K	-	Potassium
CA	-	Calcium	MG	-	Magnesium
CL	-	Chloride	NA	-	Sodium
CO3	-	Carbonate	NO3	-	Nitrate
F	-	Fluoride	SI02	-	Silica
HCO3	-	Bicarbonate	SO4	-	Sulfate



TABLE E-1 (CONTINUED)  
MINERAL ANALYSES OF GROUND WATER

DATE TIME	SAMPLER LAB	TEMP	FIELD LABORATORY PH	EC	MINERAL CONSTITUENTS IN					MILLIGRAMS PER LITER MILLIEQUIVALENTS PER LITER PERCENT REACTANCE VALUE					MILLIGRAMS PER LITER				
					CA	MG	NA	K	CO3	HC03	SO4	CL	NO3	B SIO2	F	TDS SUM	TH NCH	SAR	
.....																			
1		NORTH COASTAL REGION																	
1-14		POTTER VALLEY																	
17N/11W-17N02		M																	
08/07/74 0900	5050 5050	63	F	7.1	595	32	37	28	.5	1.0	279	25	24	2.1	.20	--	307	231	
		17	C	8.4	540	1.60	3.04	1.22	.01	.03	4.57	.52	.68	.03	--	--	287	2	0.8
						27	52	21		1	78	9	12	1					
1-15		UKIAH VALLEY																	
14N/12W-05K01		M																	
08/06/74 1300	5050 5050			7.5	650	--	--	41	--	0	346	--	6.2	--	--	--		267	
				8.1	636			1.78		.00	5.67		.17	--	--	--			1.1
								25											
14N/12W-26F02		M																	
08/06/74 1345	5050 5050			7.2	710	46	51	29	.3	0	396	37	19	.1	.30	--	408	324	
				7.9	698	2.30	4.19	1.26	.01	.00	6.49	.77	.54	.00	--	--	377	0	0.7
						30	54	16			83	10	7						
14N/12W-26K01		M																	
08/06/74 1415	5050 5050	63	F	7.1	420	--	--	17	--	0	200	--	19	--	--	--		190	
		17	C	7.9	430			.74	--	.00	3.28		.54	--	--	--			0.5
								16											
15N/12W-21H01		M																	
08/06/74 1130	5050 5050	60	F	6.9	210	--	--	8.2	--	0	120	--	3.2	--	--	--		96	
		16	C	8.2	216			.36	--	.00	1.97		.09	--	--	--			0.4
								16											
15N/12W-34K01		M																	
08/06/74 1000	5050 5050	60	F	6.7	300	25	15	12	.2	0	144	17	5.8	13.0	.50	--	178	126	
		16	C	7.5	299	1.25	1.23	.52	.01	.00	2.36	.35	.16	.21	--	--	159	6	0.5
						42	41	17			77	11	5	7					
16N/12W-05D02		M																	
08/06/74 1630	5050 5050	63	F	6.7	315	--	--	24	--	0	139	--	12	--	--	--		108	
		17	C	7.9	322			1.04	--	.00	2.28		.34	--	--	--			1.0
								33											
16N/12W-09K01		M																	
08/06/74 1540	5050 5050			7.7	420	--	--	39	--	0	243	--	8.3	--	--	--		140	
				7.8	416			1.70	--	.00	3.98		.23	--	--	--			1.4
								38											
16N/12W-16N02		M																	
08/06/74 1500	5050 5050			8.1	750	--	--	135	--	8.0	314	--	54	--	--	--		54	
				8.5	691			5.87	--	.27	5.15		1.52	--	--	--			8.0
								84											
1-16		SANJEL VALLEY																	
13N/11W-07L01		M																	
08/07/74 1215	5050 5050	65	F	7.0	215	--	--	9.2	--	0	113	--	3.8	--	--	--		91	
		18	C	8.1	210			.40	--	.00	1.85		.11	--	--	--			0.4
								18											
13N/11W-18D01		M																	
08/07/74 1300	5050 5050	60	F	7.1	425	27	33	12	.6	3.0	222	19	5.3	13.0	1.40	--	238	204	
		16	C	8.5	426	1.35	2.71	.52	.02	.10	3.64	.40	.15	.21	--	--	223	16	0.4
						29	59	11		2	81	9	3	5					
13N/11W-18E01		M																	
08/07/74 1340	5050 5050			7.1	380	--	--	16	--	0	196	--	9.6	--	--	--		167	
				8.3	378			.70	--	.00	3.21		.27	--	--	--			0.5
								17											
13N/11W-30H01		M																	
08/07/74 1450	5050 5050			6.5	450	--	--	14	--	0	195	--	4.8	--	--	--		211	
				8.2	446			.61	--	.00	3.20		.14	--	--	--			0.4
								13											
1-17		ALEXANDER VALLEY																	
10N/09W-18801		M																	
08/08/74 1245	5050 5050	62	F	6.5	295	--	--	16	--	0	119	--	9.4	--	--	--		115	
		17	C	7.0	288			.70	--	.00	1.95		.27	--	--	--			0.6
								23											
10N/09W-26L01		M																	
08/08/74 1345	5050 5050	64	F	7.3	660	--	--	12	--	0	292	--	7.7	--	--	--		346	
		18	C	8.1	672			.52	--	.00	4.79		.22	--	--	--			0.3
								7											
10N/09W-33D01		M																	
08/08/74 1515	5050 5050	65	F	7.3	305	--	--	12	--	0	155	--	7.6	--	--	--		137	
		18	C	7.9	304			.52	--	.00	2.54		.21	--	--	--			0.4
								16											
10N/10W-13K05		M																	
08/08/74 1130	5050 5050			7.3	530	44	27	25	.7	0	309	15	3.8	1.6	.10	--	313	220	
				8.3	512	2.20	2.22	1.09	.02	.00	5.06	.31	.11	.03	--	--	269	0	0.7
						40	40	20			92	6	2	1					

TABLE E-1 (CONTINUED)  
MINERAL ANALYSES OF GROUND WATER

TIME	SAMPLER LAB	TEMP	FIELD LABORATORY PH	EC	MINERAL CONSTITUENTS IN					MILLIGRAMS PER LITER MILLIEQUIVALENTS PER LITER PERCENT REACTANCE VALUE					MILLIGRAMS PER LITER				
					CA	MG	NA	K	CO3	HC03	SO4	CL	NO3	8	F	TDS SUM	TH NCH	SAR	
1 NORTH COASTAL REGION ALEXANDER VALLEY																			
1-17																			
08/08/74 0830	5050 5050	62 17	F C	6.7 8.0	365 359	--	--	9.8 .43 11	--	0 .00	164 2.69	--	6.2 .17	--	--	--	168	0.3	
														--	--	--	--	--	--
08/08/74 1000	5050 5050	62 17	F C	7.1 8.2	450 440	--	--	10 .44 9	--	0 .00	267 4.38	--	4.8 .14	--	--	--	222	0.3	
														--	--	--	--	--	--
1-18 SANTA ROSA VALLEY																			
1-18.01 SANTA ROSA AREA																			
08/12/74 1445	5050 5050	65 18	F C	7.3 8.4	290 302	25 1.25 39	14 1.15 36	18 .78 24	1.2 .03 1	0 .00	170 2.79 87	4.8 .10 3	8.2 .23 7	5.2 .08 3	.00 --	--	227 160	121 0	0.7
														--	--	--	--	--	--
08/12/74 1545	5050 5050	65 18	F C	7.3 8.3	380 383	20 1.00 27	17 1.40 38	29 1.26 34	1.1 .03 1	0 .00	157 2.57 69	4.8 .10 3	35 .99 27	3.4 .05 1	.10 --	--	250 188	119 0	1.2
														--	--	--	--	--	--
08/13/74 1330	5050 5050	63 17	F C	7.1 8.2	470 470	--	--	21 .91 20	--	0 .00	139 2.28	--	58 1.64	--	--	--	179	0.7	
														--	--	--	--	--	--
08/13/74 1415	5050 5050		F C	7.5 8.0	535 524	--	--	46 2.00 37	--	0 .00	297 4.87	--	22 .62	--	--	--	171	1.5	
														--	--	--	--	--	--
08/09/74 1300	5050 5050		F C	7.3 8.4	500 499	--	--	56 2.44 46	--	8.0 .27	258 4.23	--	20 .56	--	--	--	143	2.0	
														--	--	--	--	--	--
08/13/74 1100	5050 5050	66 19	F C	7.3 7.9	875 820	--	--	71 3.09 37	--	0 .00	357 5.85	--	74 2.09	--	.30 --	--	265	1.9	
														--	--	--	--	--	--
08/13/74 1230	5050 5050	72 22	F C	7.2 8.1	640 622	41 2.05 31	41 3.37 51	25 1.09 17	1.6 .04 1	0 .00	277 4.54 70	31 .65 10	29 .82 13	32.0 .52 8	.10 --	--	377 337	270 44	0.7
														--	--	--	--	--	--
08/09/74 0945	5050 5050	64 18	F C	6.7 7.4	178 153	--	--	--	--	--	--	--	--	--	--	--	138		
														--	--	--	--	--	--
08/09/74 0900	5050 5050		F C	7.5 7.7	370 375	--	--	38 1.65 43	--	0 .00	183 3.00	--	22 .62	--	--	--	108	1.6	
														--	--	--	--	--	--
08/09/74 1130	5050 5050		F C	7.3 7.6	375 376	23 1.15 31	19 1.56 42	16 .70 19	11 .28 8	0 .00	166 2.72 75	7.4 .15 4	22 .62 17	9.7 .16 4	.00 --	--	272 190	134 0	0.6
														--	--	--	--	--	--
08/08/74 1615	5050 5050		F C	7.3 7.7	450 448	18 .90 20	19 1.56 35	43 1.87 42	4.4 .11 2	0 .00	203 3.33 76	13 .27 6	28 .79 18	.2 .00	.10 --	--	308 226	123 0	1.7
														--	--	--	--	--	--
08/09/74 1030	5050 5050		F C	7.2 7.7	200 195	7.9 .39 21	8.1 .67 36	18 .78 42	1.3 .03 2	0 .00	83 1.36 72	1.6 .03 2	17 .48 26	.4 .01 1	.00 --	--	183 95	53 0	1.1
														--	--	--	--	--	--
1-19 ANDERSON VALLEY																			
08/21/74 1345	5050	62.0F 16.7C	F C	6.8	220	--	--	--	--	--	--	--	--	--	--	--			
														--	--	--	--	--	--
08/21/74 1500	5050 5050	65.0F 18.3C	F C	7.1 8.2	260 267	27 1.35 48	9.4 .77 27	16 .70 25	.7 .02 1	0 .00	136 2.23 80	4.1 .09 3	8.2 .23 8	14.0 .23 8	.00 --	--	163 146	106 0	0.7
														--	--	--	--	--	--
08/21/74 1415	5050	63.0F 17.2C	F C	5.9	145	--	--	--	--	--	--	--	--	--	--	--			
														--	--	--	--	--	--



TABLE E-1 (CONTINUED)  
MINERAL ANALYSES OF GROUND WATER

DATE TIME	SAMPLER LAB	TEMP	FIELD LABORATORY PH EC	MINERAL CONSTITUENTS IN								MILLIGRAMS PER LITER MILLIEQUIVALENTS PER LITER PERCENT REACTANCE VALUE					MILLIGRAMS PER LITER				
				CA	MG	NA	K	CO3	HC03	SO4	CL	NO3	B SIO2	F	TDS SUM	TH NCH	SAR				
.....																					
1		NORTH COASTAL REGION																			
1-19		ANDERSON VALLEY																			
08/21/74 1435	5050	14N/14W-19B01	M	70.0F 21.1C	6.3	270	--	--	--	--	--	--	--	--	--	--	--	--			
08/21/74 1405	5050	14N/14W-34606	M	63.0F 17.2C	7.3	535	--	--	--	--	--	--	--	--	--	--	--	--			
1-20		POINT ARENA																			
08/21/74 1055	5050	12N/16W-18K01	M	60.0F 15.5C	5.5 6.9	300 309	4.4 .22 8	11 .90 33	34 1.48 55	4.0 .10 4	0 .00	13 .21 8	20 .42 16	35 .99 37	64.0 1.03 39	.00 --	-- 179	194 46 2.0			
08/21/74 1030	5050	12N/17W-12L01	M	58.0F 14.4C	6.3	135	--	--	--	--	--	--	--	--	--	--	--	--			
08/21/74 1125	5050	13N/16W-31M01	M	62.0F 16.7C	6.1	440 457	--	--	--	--	--	--	--	89 2.51	9.0 .15	-- --	-- --	80			
08/21/74 1000	5050	13N/17W-24D01	M	63.0F 17.2C	6.6	225	--	--	--	--	--	--	--	--	--	--	--	--			
08/21/74 1015	5050	13N/17W-25M01	M	63.0F 17.2C	7.8 8.2	340 376	42 2.10 57	3.9 .32 9	28 1.22 33	.9 .02 1	0 .00	140 2.29 63	17 .35 10	33 .93 25	5.1 .08 2	.00 --	-- 199	220 7 1.1			
1-21		FORT BRAGG TERRACE																			
08/21/74 0830	5050	17N/17W-30F01	M	61.0F 16.1C	5.8	680	--	--	--	--	--	--	--	--	--	--	--	--			
08/21/74 0815	5050	17N/17W-30M01	M	62.0F 16.7C	6.7	325	--	--	--	--	--	--	--	--	--	--	--	--			
08/21/74 0730	5050	19N/17W-30G01	M	61.0F 16.1C	5.8	320 312	--	--	--	--	--	--	--	68 1.92	7.2 .12	-- --	-- --	47			
08/21/74 0715	5050	19N/17W-30Q01	M	60.0F 15.5C	6.9	395 401	--	--	--	--	--	--	--	48 1.35	-- --	-- --	-- --	40			

TABLE E-1 (CONTINUED)  
MINERAL ANALYSES OF GROUND WATER

DATE TIME	SAMPLER LAB	TEMP	FIELD LABORATORY PH	EC	MINERAL CONSTITUENTS IN					MILLIGRAMS PER LITER MILLIEQUIVALENTS PER LITER					MILLIGRAMS PER LITER				
					CA	MG	NA	K	CO3	PERCENT MC03	REACTANCE S04	CL	NO3	VALUE	B SIO2	F	TDS SUM	TH NCM	SAR
2																			
2-01																			
SAN FRANCISCO BAY REGION																			
PETALUMA VALLEY																			
03N/06W-03C01 M																			
08/14/74	5050	67	F	7.3	4000	170	203	340	16	0	540	.3	1080	23.0	.20	--	2230	1260	4.2
1315	5050	19	C	8.3	4110	8.48 21	16.69 41	14.79 37	.41 1	.00	8.85 22	.01	30.46 77	.37 1	--	--	2098	817	
03N/06W-18M01 M																			
08/14/74	5050	64	F	6.7	600	30	42	28	.2	0	212	44	45	20.0	.00	--	346	248	0.8
1145	5050	18	C	8.1	600	1.50 24	3.45 56	1.22 20	.01	.00	3.47 58	.92	1.27 21	.32 5	--	--	313	74	
03N/07W-14F01 M																			
08/14/74	5050	64	F	7.3	640	--	--	64	--	4.0	219	--	57	--	--	--	--	182	2.1
1030	5050	18	C	8.4	614	--	--	2.78 43	--	.13	3.59	--	1.61	--	--	--	--	--	
04N/06W-21A01 M																			
08/14/74	5050	67	F	7.3	1100	--	--	66	--	0	158	--	199	--	--	--	--	352	1.5
1400	5050	19	C	8.0	1070	--	--	2.87 29	--	.00	2.59	--	5.61	--	--	--	--	--	
05N/07W-19N01 M																			
08/13/74	5050			7.9	515	--	--	24	--	0	188	--	61	--	--	--	--	192	0.8
1600	5050			8.1	504	--	--	1.04 21	--	.00	3.08	--	1.72	--	--	--	--	--	
05N/07W-26E01 M																			
08/14/74	5050	63	F	7.5	825	--	--	69	--	0	334	--	86	--	--	--	--	285	1.8
0840	5050	17	C	8.3	842	--	--	3.00 34	--	.00	5.47	--	2.43	--	--	--	--	--	
05N/07W-35H01 M																			
08/14/74	5050	66	F	7.5	600	--	--	57	--	0	244	--	42	--	--	--	--	164	1.9
0910	5050	19	C	8.2	583	--	--	2.48 43	--	.00	4.00	--	1.18	--	--	--	--	--	
2-02																			
NAPA-SONOMA VALLEY																			
2-02.01																			
NAPA VALLEY																			
03N/03W-18G01 M																			
07/24/74	5050			7.5	1200	72	55	88	1.5	0	352	46	168	16.0	.20	--	657	407	1.9
1330	5050			8.0	1190	3.59 30	4.52 38	3.83 32	.04	.00	5.77 49	.96	4.74 40	.26 2	--	--	620	117	
04N/04W-04C02 M																			
07/24/74	5050	63	F	6.7	2500	--	--	211	--	0	226	--	556	--	--	--	--	593	3.8
1445	5050	17	C	8.2	2250	--	--	9.18 44	--	.00	3.70	--	15.68	--	--	--	--	--	
04N/04W-05C01 M																			
07/24/74	5050			6.9	295	8.8	7.3	37	1.5	0	82	11	26	26.0	.00	--	218	52	2.2
1515	5050			7.8	291	.44 16	.60 22	1.61 60	.04 1	.00	1.34 49	.23	.73 8	.42 15	--	--	158	0	
04N/04W-12M02 M																			
07/25/74	5050	64	F	6.8	810	--	--	62	--	0	184	--	96	--	--	--	--	238	1.7
0830	5050	18	C	7.8	775	--	--	2.70 36	--	.00	3.02	--	2.71	--	--	--	--	--	
05N/04W-09Q02 M																			
07/25/74	5050			7.3	500	24	15	59	.6	0	217	12	41	3.2	.10	--	294	121	2.3
0915	5050			8.0	508	1.20 24	1.23 25	2.57 51	.02	.00	3.56 71	.25	1.16 23	.05 1	--	--	262	0	
05N/04W-15E01 M																			
07/24/74	5050			7.7	400	18	12	46	2.2	0	197	1.0	28	.1	.10	--	254	95	2.1
1630	5050			8.0	396	.90 23	.99 25	2.00 51	.06 2	.00	3.23 80	.02	.79 20	.00	--	--	204	0	
05N/04W-20R02 M																			
07/25/74	5050			7.1	800	--	--	82	--	0	131	--	119	--	--	--	--	176	2.7
1000	5050			7.9	766	--	--	3.57 50	--	.00	2.15	--	3.36	--	--	--	--	--	
05N/04W-21P02 M																			
07/25/74	5050			8.2	2750	52	9.8	418	3.3	0	327	109	500	5.2	.40	--	1270	170	13.9
1030	5050			8.2	2320	2.59 12	.81 4	18.18 84	.08	.00	5.36 25	2.27 10	14.10 65	.08	--	--	1258	0	
05N/04W-29H01 M																			
07/25/74	5050			6.4	550	--	--	35	--	0	146	--	68	--	--	--	--	180	1.1
1100	5050			7.8	541	--	--	1.52 30	--	.00	2.39	--	1.92	--	--	--	--	--	
06N/04W-27L02 M																			
07/25/74	5050			7.7	275	--	--	43	--	0	121	--	9.7	--	--	--	--	56	2.5
1230	5050			8.2	269	--	--	1.87 63	--	.00	1.98	--	.27	--	--	--	--	--	
07N/05W-27A01 M																			
07/25/74	5050			7.3	550	--	--	45	--	0	253	--	43	--	--	--	--	164	1.5
1345	5050			8.2	549	--	--	1.96 37	--	.00	4.15	--	1.21	--	--	--	--	--	



TABLE E-1 (CONTINUED)  
MINERAL ANALYSES OF GROUND WATER

DATE TIME	SAMPLER LAB	TEMP	FIELD LABORATORY PH EC	MINERAL CONSTITUENTS IN								MILLIGRAMS PER LITER MILLIEQUIVALENTS PER LITER PERCENT REACTANCE VALUE					MILLIGRAMS PER LITER						
				CA	MG	NA	K	CO3	HCO3	SO4	CL	NO3	B	F	TDS SUM	TH NCH	SAR						
*****																							
2		SAN FRANCISCO BAY REGION																					
2-02		NAPA-SONOMA VALLEY																					
2-02.01		NAPA VALLEY																					
07/25/74 1430	5050	M		7.3	295	--	--	31	--	0	179	--	4.8	--	--	--		87					
	5050			7.8	296			1.35	--	.00	2.93	--	.14	--	--			1.4					
09N/07W-36H04		M				--	--	64	--	0	186	--	38	--	--	--		80					
07/25/74 1515	5050		85	F	7.4	445			2.78	--	.00	3.05	--	1.07	--	--	--		3.1				
	5050	29	C	7.9	451			63															
2-02.02		SONOMA VALLEY																					
08/01/74 1300	5050	M		7.9	425	--	--	25	--	0	202	--	30	--	--	--		154					
	5050			8.1	426			1.09	--	.00	3.31	--	.85	--	--			0.9					
05N/05W-08P02		M				10	6.8	88	7.5	0	201	26	40	1.4	.70	--	360	53					
08/01/74 1530	5050			7.3	520	.50	.56	3.83	.19	.00	3.29	.54	1.13	.02	--	--	279	0	5.3				
	5050		7.9	521	10	11	75	4		66	11	23											
05N/05W-18002		M				--	--	44	--	0	176	--	34	--	--	--		164					
08/01/74 1430	5050		64	F	7.1	520			1.91	--	.00	2.88	--	.96	--	--	--		1.5				
	5050	18	C	8.0	514			37															
05N/05W-28N01		M				--	--	75	--	0	79	--	295	--	--	--		355					
08/01/74 1745	5050		65	F	6.7	1275			3.26	--	.00	1.29	--	8.32	--	--	--		1.7				
	5050	18	C	7.3	1190			31															
05N/06W-02N02		M				--	--	31	--	0	134	--	14	--	--	--		80					
08/01/74 1630	5050			7.1	285			1.35	--	.00	2.20	--	.39	--	--	--			1.5				
	5050		8.3	280			46																
05N/06W-12M01		M				--	--	57	--	0	266	--	34	--	--	--		158					
08/01/74 1600	5050		65	F	7.5	550			2.48	--	.00	4.36	--	.96	--	--	--		2.0				
	5050	18	C	8.2	536			44															
05N/06W-24M01		M				20	12	16	1.1	0	141	3.8	10	6.1	.00	--	249	101					
08/01/74 1345	5050			7.1	275	1.00	.99	.70	.03	.00	2.31	.08	.28	.10	--	--	138	0	0.7				
	5050		8.2	266	37	36	26	1		83	3	10	4										
06N/06W-26E01		M				--	--	77	--	0	150	--	45	--	--	--		11					
08/01/74 1700	5050			8.3	410			3.35	--	.00	2.46	--	1.27	--	--	--			10.1				
	5050		8.2	416			94																
2-03		SUISUN-FAIRFIELD VALLEY																					
03N/01E-21001		M				70	F	8.4	2250	8.8	4.9	440	1.9	19	667	103	212	.5	7.70	--	1140	42	
07/10/74 1000	5050			21	C	8.5	1950	.44	.40	19.14	.05	.63	10.93	.63	3	56	11	30	.01	--	--	1126	0
	04N/02W-04001		M				64	F	7.7	1700	61	83	146	.2	0	696	140	67	15.0	1.20	--	847	495
07/09/74 1500	5050			18	C	8.1	1440	3.04	6.83	6.35	.01	.00	11.41	2.91	.00	69	2.91	1.89	.24	--	--	856	0
	5050						19	42	39							18	11	1					
04N/02W-05Q02		M								--	--	86	--	0	312	--	133	--	--	--		380	
07/16/74 1330	5050			7.3	1400			3.74	--	.00	5.11	--	3.75	--	--	--							1.9
	5050		8.1	1160			33																
04N/02W-18M01		M				65	F	7.3	1250	84	34	94	.5	0	345	127	96	15.0	.60	--	584	352	
07/09/74 1300	5050			18	C	7.9	1070	4.19	2.80	4.09	.01	.00	5.65	2.64	.00	50	2.64	2.71	.24	--	--	621	67
	5050						38	25	37							23	24	2					
04N/03W-13G02		M				63	F	7.3	1100	--	--	80	--	0	338	--	64	--	--	--		320	
07/09/74 1400	5050			17	C	8.1	994			3.48	--	.00	5.54	--	.00	5.54	--	1.80	--	--	--		
	5050								35														
05N/01W-19K02		M																					
07/16/74 1430	5050			8.1	1050	50	30	125	.7	17	398	44	75	17.0	3.00	--	--	564	250				
	5050		8.6	976	2.50	2.47	5.44	.02	.57	6.52	.92	2.12	.27	--	--	--	557	0				3.5	
05N/01W-29C01		M																					
06/27/74 1630	5050			74	F	7.7	2500	124	40	258	.7	0	446	45	423	17.0	6.80	--	1190	473			
	5050		23	C	8.0	2100	6.19	3.29	11.22	.02	.00	7.31	.94	11.93	.27	--	--	1134	109				5.2
5050							30	16	54				5	58	1								

TABLE E-1 (CONTINUED)  
MINERAL ANALYSES OF GROUND WATER

DATE TIME	SAMPLER LAB	TEMP	FIELD LABORATORY PH EC	MINERAL CONSTITUENTS IN							MILLIGRAMS PER LITER MILLIEQUIVALENTS PER LITER PERCENT REACTANCE VALUE					MILLIGRAMS PER LITER				
				CA	MG	NA	K	CO3	MC03	SO4	CL	NO3	B 5102	F	TDS SUM	TH NCH	SAR			
.....																				
2		SAN FRANCISCO BAY REGION																		
2-03		SUISUN-FAIRFIELD VALLEY																		
06/27/74 1515	5050	M	65 F 7.6 1550	107	34	121	.5	0	336	28	231	37.0	1.10	--	756	407	2.6			
			18 C 8.0 1380	5.34 40	2.80 21	5.26 39	.01	.00	5.51 42	.58 4	6.51 49	.60 5	--	--	725	132				
07/09/74 1700	5050	M	65 F 7.1 675	--	--	57	--	0	247	--	24	--	--	--		197	1.8			
			18 C 7.2 650			2.48 39		.00	4.05		.68		--	--						
07/09/74 1000	5050	M	65 F 7.5 1325	78	60	103	.3	0	546	99	51	35.0	1.70	--	680	440	2.1			
			18 C 8.1 1160	3.89 29	4.93 37	4.48 34	.01	.00	8.95 69	2.06 16	1.44 11	.56 4	--	--	696	0				
07/09/74 1115	5050	M	63 F 6.9 595	44	29	31	1.0	0	227	55	25	16.0	.20	--	336	231	0.9			
			17 C 7.9 572	2.20 37	2.38 40	1.35 23	.03 1	.00	3.72 64	1.15 20	.71 12	.26 4	--	--	313	43				
07/09/74 1545	5050	M	67 F 7.9 1575	52	95	118	.3	0	620	148	36	62.0	1.20	--	842	522	2.3			
			19 C 7.9 1360	2.59 17	7.81 50	5.13 33	.01	.00	10.16 67	3.08 20	1.02 7	1.00 7	--	--	817	12				
2-04		PITTSBURG PLAIN																		
07/19/74 1245	5050	M	71 F 8.0 825	--	--	70	--	0	298	--	81	--	--	--		268	1.9			
			22 C 8.2 818			3.05 36		.00	4.88		2.28		--	--						
07/23/74 1100	5050	M	65 F 7.7 4000	141	117	655	10	0	418	504	986	1.4	1.00	--	2680	836	9.9			
			18 C 8.1 4600	7.04 16	9.62 21	28.49 63	.26 1	.00	6.85 15	10.49 23	27.81 62	.02	--	--	2621	491				
2-05		CLAYTON VALLEY																		
07/23/74 1515	5050	M	65 F 7.1 1550	99	68	54	.7	0	382	222	60	28.0	.40	--	748	528	1.0			
			18 C 7.9 1190	4.94 38	5.59 43	2.35 18	.02	.00	6.26 48	4.62 35	1.69 13	.45 3	--	--	720	214				
07/23/74 1315	5050	M	71 F 7.6 1400	--	--	92	--	0	436	--	77	--	--	--		540	1.7			
			22 C 8.0 1290			4.00 27		.00	7.15		2.17		--	--						
07/23/74 1400	5050	M	67 F 7.1 1500	114	72	70	.5	0	518	80	125	62.0	.40	--	805	579	1.3			
			19 C 7.6 1390	5.69 39	5.92 40	3.05 21	.01	.00	8.49 58	1.67 11	3.53 24	1.00 7	--	--	779	156				
07/23/74 1600	5050	M	65 F 7.3 1200	85	53	71	.5	0	273	100	149	44.0	.10	--	697	429	1.5			
			18 C 7.9 1160	4.24 36	4.36 37	3.09 26	.01	.00	4.47 39	2.08 18	4.20 37	.71 6	--	--	637	207				
07/23/74 1630	5050	M	65 F 7.5 1000	81	58	36	.8	0	377	80	69	33.0	.40	--	565	440	0.7			
			18 C 7.9 964	4.04 39	4.77 46	1.57 15	.02	.00	6.18 60	1.67 16	1.95 19	.53 5	--	--	544	132				
2-06		YGNACIO VALLEY																		
07/24/74 1130	5050	M	67 F 7.5 2500	--	--	238	--	0	561	--	304	--	--	--		634	4.1			
			19 C 8.0 2200			10.35 45		.00	9.19		8.57		--	--						
07/24/74 1030	5050	M	68 F 7.3 1450	--	--	110	--	0	596	--	87	--	--	--		529	2.1			
			20 C 8.2 1320			4.79 31		.00	9.77		2.45		--	--						
2-09		SANTA CLARA VALLEY																		
2-09.01		EAST BAY AREA																		
07/16/74 0925	5100	M	63 F	--	--	--	--	--	--	--	326	--	--	--			3.6			
			17 C	1530							9.19		--	--						
07/16/74 1210	5100	M	66 F	--	--	408	--	0	178	--	2060	--	--	--	2460		3.6			
			19 C 7.4 6840			17.75 27		.00	2.92		58.09		--	--						



TABLE E-1 (CONTINUED)  
MINERAL ANALYSES OF GROUND WATER

DATE TIME	SAMPLER LAB	TEMP	FIELD LABORATORY PH EC	MINERAL CONSTITUENTS IN				MILLIGRAMS PER LITER MILLIEQUIVALENTS PER LITER PERCENT REACTANCE VALUE					MILLIGRAMS PER LITER					
				CA	MG	NA	K	CO3	HCO3	SO4	CL	NO3	B	F	TDS SUM	TH NCH	SAR	
.....																		
	2			SAN FRANCISCO BAY REGION														
	2-09			SANTA CLARA VALLEY														
	2-09.01			EAST BAY AREA														
07/16/74 1245	5100 5050	67 19	F C	656	--	--	--	--	--	--	27 .76	--	--	--				
07/16/74 1300	5100 5050	68 20	F C	7.6 764	--	--	45 1.96 24	--	0 .00	285 4.67	--	32 .90	--	--	--	307	1.1	
07/18/74 1245	5100 5050	70 21	F C	7.7 644	58 2.89 44	26 2.14 33	34 1.48 23	1.4 .04 1	0 .00	259 4.25 65	36 .75 11	41 1.16 18	23.0 .37 6	.20	--	376 347	253 39	0.9
07/18/74 1315	5100 5050	67 19	F C	7.8 705	67 3.34 47	26 2.14 30	37 1.61 23	1.8 .05 1	0 .00	290 4.75 67	38 .79 11	42 1.18 17	25.0 .40 6	.20	--	420 380	275 37	1.0
07/16/74 1020	5100 5050	79 26	F C	774	--	--	--	--	--	--	--	82 2.31	--	--	--			
07/18/74 1355	5100 5050	68 20	F C	1100	--	--	--	--	--	--	--	81 2.28	--	--	--			
07/18/74 1410	5100 5050	64 18	F C	1380	--	--	--	--	--	--	--	139 3.92	--	--	--			
07/19/74 1335	5100 5050	65 18	F C	7.8 2470	150 7.49 29	123 10.12 39	188 8.18 32	1.4 .04	0 .00	619 10.15 40	185 3.85 15	404 11.39 44	17.0 .27 1	1.10	--	1580 1374	880 373	2.8
07/16/74 1345	5100 5050	74 23	F C	997	--	--	--	--	--	--	--	106 2.99	--	--	--			
07/16/74 1440	5100 5050	69 21	F C	1570	--	--	--	--	--	--	--	101 2.85	--	--	--			
07/18/74 1530	5100 5050	64 18	F C	7.7 470	15 .75 17	6.9 .57 13	71 3.09 69	2.5 .06 1	0 .00	154 2.52 58	1.6 .03 1	62 1.75 40	4.3 .07 2	.30	--	256 239	66 0	3.8
07/18/74 1445	5100 5050	72 22	F C	7.6 3530	--	--	364 15.83 43	--	0 .00	768 12.59	--	655 18.47	--	--	--	1060	4.9	
07/19/74 1305	5100 5050	69 21	F C	8.1 653	39 1.95 29	9.8 .81 12	88 3.83 58	2.5 .06 1	0 .00	271 4.44 68	44 .92 14	42 1.18 18	.1 .00	.30	--	363 359	138 0	3.3
08/05/74 1050	5401 5050	65 18	F C	7.5 1425 7.8 1480	--	--	70 3.05 21	--	0 .00	237 3.88	--	260 7.33	--	--	--	573	1.3	
08/12/74 0820	5401 5050	64 18	F C	7.3 700 8.4 694	--	--	55 2.39 34	--	4.0 .13	235 3.85	--	53 1.49	--	--	--	231	1.6	
08/13/74 0950	5401 5050	63 17	F C	7.6 550 8.4 539	48 2.40 43	23 1.89 34	28 1.22 22	1.6 .04 1	2.0 .07 1	220 3.61 66	46 .96 17	28 .79 14	4.7 .08 1	.40	--	298 290	214 31	0.8
08/12/74 0950	5401 5050	65 18	F C	7.6 730 7.9 749	--	--	46 2.00 25	--	0 .00	321 5.26	--	44 1.24	--	--	--	294	1.2	
08/12/74 1250	5401 5050	60 16	F C	7.7 1450 7.9 1600	--	--	227 9.87 56	--	0 .00	618 10.13	--	111 3.13	--	--	--	390	5.0	

TABLE E-1 (CONTINUED)  
MINERAL ANALYSES OF GROUND WATER

DATE TIME	SAMPLER LAB	TEMP	FIELD LABORATORY PH	EC	MINERAL CONSTITUENTS IN					MILLIGRAMS PER LITER MILLIEQUIVALENTS PER LITER PERCENT REACTANCE VALUE					MILLIGRAMS PER LITER				
					CA	MG	NA	K	CO3	MC03	SO4	CL	NO3	B 5102	F	TDS SUM	TH NCH	SAR	
.....																			
2																			
2-09																			
SAN FRANCISCO BAY REGION																			
SANTA CLARA VALLEY																			
2-09.01																			
EAST BAY AREA																			
08/15/74	5401	62	F	7.6	750	52	25	45	1.7	0	192	64	65	6.6	.30	--	381	231	
1115	5050	17	C	8.2	669	2.59	2.06	1.96	.04	.00	3.15	1.33	1.83	.11	--	--	354	75	
04S/01W-28C15																			
04S/01W-28D04																			
08/12/74	5401	68	F	7.7	700	--	--	44	--	0	219	--	76	--	--	--	262		
1140	5050	20	C	7.9	716	--	--	1.91	--	.00	3.59	--	2.14	--	--	--		1.2	
04S/01W-28F05																			
08/12/74	5401	65	F	7.7	950	--	--	55	--	0	225	--	180	--	--	--	301		
1045	5050	18	C	7.7	870	--	--	2.39	--	.00	3.69	--	5.08	--	--	--		1.4	
04S/01W-29J08																			
08/12/74	5401	67	F	7.5	1500	--	--	107	--	0	282	--	263	--	--	--	479		
1050	5050	19	C	7.7	1480	--	--	4.65	--	.00	4.62	--	7.42	--	--	--		2.1	
04S/01W-29L12																			
08/12/74	5401	63	F	7.6	1700	--	--	68	--	0	207	--	412	--	--	--	706		
0915	5050	17	C	7.6	1800	--	--	2.96	--	.00	3.39	--	11.62	--	--	--		1.1	
04S/01W-33A02																			
08/15/74	5401	64	F	7.5	1450	128	42	85	2.7	0	346	86	197	32.0	.70	--	749	495	
1100	5050	18	C	7.8	1340	6.39	3.45	3.70	.07	.00	5.67	1.79	5.56	.52	--	--	744	209	
04S/01W-35P03																			
08/12/74	5401	69	F	8.0	750	--	--	108	--	0	329	--	52	--	--	--	131		
1310	5050	21	C	8.2	706	--	--	4.70	--	.00	5.39	--	1.47	--	--	--		4.1	
04S/02W-03R01																			
08/12/74	5401	66	F	8.1	600	--	--	75	--	0	292	--	20	--	--	--	148		
1425	5050	19	C	8.3	617	--	--	3.26	--	.00	4.79	--	.56	--	--	--		2.7	
04S/02W-12C01																			
08/12/74	5401	72	F	7.8	700	52	14	80	2.4	9.0	246	43	62	5.1	.30	--	410	187	
1410	5050	22	C	8.5	709	2.59	1.15	3.48	.06	.30	4.03	.90	1.75	.08	--	--	389	0	
04S/02W-15C05																			
08/12/74	5401	76	F	7.9	660	71	21	40	2.2	8.0	243	51	51	10.0	.20	--	387	264	
1430	5050	24	C	8.5	667	3.54	1.73	1.74	.06	.27	3.98	1.06	1.44	.16	--	--	374	51	
04S/02W-22P02																			
08/12/74	5401	70	F	8.0	720	--	--	100	--	0	242	--	77	--	--	--	148		
1450	5050	21	C	8.2	721	--	--	4.35	--	.00	3.97	--	2.17	--	--	--		3.6	
04S/02W-24D04																			
08/13/74	5401	66	F	8.0	770	--	--	23	--	4.0	281	--	74	--	--	--	328		
0920	5050	19	C	8.4	784	--	--	1.00	--	.13	4.61	--	2.09	--	--	--		0.6	
04S/02W-24F02																			
08/15/74	5401	63	F	7.2	6500	771	392	182	6.2	0	107	82	2640	24.0	.40	--	6020	3540	
1400	5050	17	C	7.5	7740	38.47	32.24	7.92	.16	.00	1.75	1.71	74.45	.39	--	--	4150	3451	
04S/02W-24L06																			
08/12/74	5401	66	F	7.8	950	--	--	39	--	0	234	--	152	--	--	--	394		
1355	5050	19	C	8.3	957	--	--	1.70	--	.00	3.84	--	4.29	--	--	--		0.9	
04S/02W-26A01																			
08/12/74	5401	66	F	7.8	2000	--	--	86	--	0	127	--	565	--	--	--	788		
1505	5050	19	C	7.6	2110	--	--	3.74	--	.00	2.08	--	15.93	--	--	--		1.3	
05S/01W-08P01																			
08/12/74	5401	68	F	7.6	1600	119	36	158	6.2	0	236	46	385	6.6	.20	--	995	444	
1520	5050	20	C	8.0	1630	5.94	2.96	6.87	.16	.00	3.87	.96	10.86	.11	--	--	873	252	
05S/01W-09J01																			
08/12/74	5401	70	F	7.6	1450	--	--	146	--	0	310	--	245	--	--	--	356		
1325	5050	21	C	7.9	1380	--	--	6.35	--	.00	5.08	--	6.91	--	--	--		3.4	
2-09.02																			
SOUTH BAY AREA																			
05S/01E-31R01																			
09/26/74	2400	62	F			--	--	--	--	--	--	--	150	--	--	--			
0700	5050	17	C	7.3	1660	--	--	--	--	--	--	--	4.23	--	--	--			



TABLE E-1 (CONTINUED)  
MINERAL ANALYSES OF GROUND WATER

DATE TIME	SAMPLER LAB	TEMP	FIELD LABORATORY PH	EC	MINERAL CONSTITUENTS IN					MILLIGRAMS PER LITER MILLIEQUIVALENTS PER LITER					MILLIGRAMS PER LITER								
					CA	MG	NA	K	CO3	HC03	SO4	CL	NO3	B	F	TDS SUM	TH NCH	SAR					
						.....																	
		2 2-09		SAN FRANCISCO BAY REGION SANTA CLARA VALLEY																			
		2-09.02		SOUTH BAY AREA																			
08/07/74	5701	65	F		70	28	37	1.4	.7	312	59	34	7.0	--	.1			290					
	5701	18	C	7.5	687	3.49 47	2.30 31	1.61 22	.04 1	.02	5.11 69	1.23 17	.96 13	.11 1	--	30.0	421	33	0.9				
05/14/74	5701	64	F		76	24	34	1.0	.8	313	55	34	12.0	--	.2			288					
	5701	18	C	7.6	686	3.79 52	1.97 27	1.48 20	.03 0.03	.03	5.13 69	1.15 15	.96 13	.19 3	--	26.0	417	30	0.9				
05/10/74	5701	68	F		50	34	107	1.8	1.3	378	69	78	10.0	--	.3			266					
	5701	20	C	7.7	934	2.50 25	2.80 28	4.65 47	.05 1	.04	6.20 62	1.44 14	2.20 22	.16 2	--	23.0	560	0	2.9				
01/08/74	5701	64	F		34	5.0	157	2.7	.6	299	66	92	5.0	--	.1			108					
	5701	18	C	7.5	896	1.70 19	.41 5	6.83 76	.07 1	.02	4.90 55	1.37 15	2.59 29	.08 1	--	23.0	532	0	6.7				
01/30/74	5701	65	F		34	5.0	151	2.7	1.0	300	67	90	4.0	--	.1			106					
	5701	18	C	7.7	883	1.70 19	.41 5	6.57 75	.07 1	.03	4.92 55	1.39 16	2.54 28	.06 1	--	20.0	522	0	6.4				
03/24/74	5701	67	F		36	7.0	139	2.8	1.3	300	61	77	6.0	--	.1			118					
	5701	19	C	7.8	822	1.80 21	.58 7	6.05 71	.07 1	.04	4.92 58	1.27 15	2.17 26	.10 1	--	20.0	498	0	5.6				
05/10/74	5701	70	F		47	7.0	172	3.0	1.4	334	93	103	3.0	--	.2			146					
	5701	21	C	7.8	1020	2.35 22	.58 6	7.48 71	.08 1	.05	5.47 53	1.94 19	2.90 28	.05	--	21.0	615	0	6.2				
03/20/74	5701	73	F		34	.0	116	2.1	1.6	272	46	45	2.0	--	.2			88					
	5701	23	C	8.0	642	1.70 25	.00	5.05 74	.05 1	.05	4.46 66	.96 14	1.27 19	.03	--	22.0	402	0	5.5				
01/30/74	5701	63	F		27	3.0	114	2.0	1.5	275	46	43	1.0	.70	.1			82					
	5701	17	C	7.9	657	1.35 20	.25 4	4.96 75	.05 1	.05	4.51 67	.96 14	1.21 18	.02	--	20.0	393	0	5.6				
03/20/74	5701	73	F		29	1.0	116	2.2	1.8	269	45	43	2.0	--	.2			72					
	5701	23	C	8.0	621	1.30 20	.08 1	5.05 78	.06 1	.06	4.41 66	.94 14	1.21 18	.03	--	20.0	389	0	6.1				
09/26/74 0830	2400 5050	62 17	F C	7.7	701	44 2.20 31	24 1.97 27	68 2.96 41	1.5 .04 1	0 0.00	266 4.36 62	58 1.21 17	49 1.38 20	5.6 .09 1	1.10	-- --	401 382	209 0	2.0				
	5701					62 3.09 33	24 1.97 21	99 4.31 46	2.4 .06 1	.8 0.03	346 5.67 58	89 1.85 19	73 2.06 21	8.0 .13 1	--	.3 19.0	547	256 0	2.7				
06/13/74	5701	64	F		57	25	76	2.2	.9	304	67	59	13.0	--	.3			244					
	5701	18	C	7.7	765	2.84 34	2.06 25	3.31 40	.06 1	.03	4.98 60	1.39 17	1.66 20	.21 3	--	18.0	468	0	2.1				
08/07/74	5701	72	F		42	15	62	1.0	1.1	259	37	35	2.0	--	.1			166					
	5701	22	C	7.8	565	2.10 35	1.23 20	2.70 45	.03 1	.04	4.25 70	.77 13	.99 16	.03	--	28.0	350	0	2.1				
07/05/74	5701	67	F		77	49	48	2.1	1.5	361	66	75	35.0	--	.1			392					
	5701	19	C	7.8	913	3.84 38	4.03 40	2.09 21	.05 1	.05	5.92 59	1.37 14	2.12 21	.56 6	--	28.0	559	95	1.1				
07/05/74	5701	67	F		81	35	52	2.0	1.0	353	63	67	26.0	--	.1			346					
	5701	19	C	7.6	865	4.04 44	2.88 31	2.26 24	.05 1	.03	5.79 61	1.31 14	1.89 20	.42 4	--	24.0	525	55	1.2				
06/07/74	5701	65	F		67	46	50	1.6	1.3	374	55	65	24.0	--	.1			358					
	5701	18	C	7.7	872	3.34 36	3.78 40	2.18 23	.04 1	.04	6.13 64	1.15 12	1.83 19	.39 4	--	28.0	522	48	1.2				
05/04/74	5701	72	F		66	35	69	2.0	1.3	378	46	70	6.0	--	.1			308					
	5701	22	C	7.7	859	3.29 36	2.88 31	3.00 33	.05 1	.04	6.20 67	.96 10	1.97 21	.10 1	--	28.0	509	0	1.7				

## MINERAL ANALYSES OF GROUND WATER

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TABLE E-1 (CONTINUED)  
MINERAL ANALYSES OF GROUND WATER

DATE TIME	SAMPLER LAB	TEMP	FIELD LABORATORY PH EC	MINERAL CONSTITUENTS IN				MILLIGRAMS PER LITER MILLIEQUIVALENTS PER LITER				MILLIGRAMS PER LITER						
				CA	MG	NA	K	CO3	HCO3	SO4	CL	NO3	B	F SIO2	TDS SUM	TH NCH	SAR	
.....																		
2		SAN FRANCISCO BAY REGION																
2-09		SANTA CLARA VALLEY																
2-09.02		SOUTH BAY AREA																
02/25/74	5701	62	F		55	37	18	1.3	.4	291	41	27	18.0	--	.1		291	
	5701	17	C	7.3	2.74 42	3.04 46	.78 12	.03 12	.01 71	4.77 71	.85 13	.76 11	.29 4	--	27.0	368	50	0.5
06/21/74	5701	64	F		56	35	19	1.1	.3	286	42	25	19.0	--	.1		284	
	5701	18	C	7.2	2.79 43	2.88 44	.83 13	.03 13	.01 71	4.69 71	.87 13	.71 11	.31 5	--	26.0	364	49	0.5
04/15/74	5701	65	F		62	39	21	1.1	.9	315	45	29	23.0	--	.2		316	
	5701	18	C	7.6	3.09 43	3.21 44	.91 13	.03 13	.03 70	5.16 70	.94 13	.82 11	.37 5	--	26.0	402	56	0.5
04/18/74	5701	64	F		66	32	21	1.3	.8	308	40	25	18.0	--	.1		294	
	5701	18	C	7.6	3.29 48	2.63 38	.91 13	.03 13	.03 73	5.05 73	.83 12	.71 10	.29 4	--	26.0	382	42	0.5
02/25/74	5701	62	F		52	36	17	1.2	.4	281	39	25	14.0	--	.1		279	
	5701	17	C	7.3	2.59 41	2.96 47	.74 12	.03 12	.01 72	4.61 72	.81 13	.71 11	.23 4	--	28.0	351	47	0.4
04/25/74	5701	69	F		70	38	36	1.3	1.5	358	63	29	17.0	--	.1		332	
	5701	21	C	7.8	3.49 42	3.13 38	1.57 19	.03 19	.05 1	5.87 71	1.31 16	.82 10	.27 3	--	28.0	460	35	0.9
04/25/74	5701	68	F		67	35	34	1.4	1.5	343	58	29	13.0	--	.1		314	
	5701	20	C	7.8	3.34 43	2.88 37	1.48 19	.04 1	.05 1	5.62 71	1.21 15	.82 10	.21 3	--	28.0	436	28	0.8
05/24/74	5701	69	F		68	43	32	1.2	1.5	354	62	30	17.0	--	.1		348	
	5701	21	C	7.8	3.39 41	3.54 42	1.39 17	.03 17	.05 1	5.80 70	1.29 16	.85 10	.27 3	--	30.0	459	54	0.7
01/08/74	5701	63	F		66	38	35	1.5	.6	350	63	30	17.0	--	.1		324	
	5701	17	C	7.4	3.29 41	3.13 39	1.52 19	.04 1	.02 1	5.74 70	1.31 16	.85 10	.27 3	--	31.0	454	33	0.9
05/10/74	5701	64	F		70	45	32	1.2	1.7	389	65	28	14.0	--	.2		362	
	5701	18	C	7.8	3.49 41	3.70 43	1.39 16	.03 16	.06 1	6.38 72	1.35 15	.79 9	.23 3	--	30.0	478	38	0.7
01/30/74	5701	63	F		68	56	33	1.5	1.3	417	74	36	14.0	--	.1		400	
	5701	17	C	7.7	3.39 36	4.61 49	1.44 15	.04 15	.04 71	6.83 71	1.54 16	1.02 11	.23 2	--	30.0	519	57	0.7
05/24/74	5701	65	F		66	61	34	1.3	2.0	414	78	38	17.0	--	.2		416	
	5701	18	C	7.9	3.29 34	5.02 51	1.48 15	.03 15	.07 1	6.79 69	1.62 16	1.07 11	.27 3	--	28.0	529	73	0.7
01/30/74	5701	63	F		64	55	36	1.5	1.9	403	77	30	16.0	.45	.1		386	
	5701	17	C	7.9	3.19 34	4.52 48	1.57 17	.04 17	.06 1	6.61 70	1.60 17	.85 9	.26 3	--	30.0	510	52	0.8
09/30/74	2400 1100	66 5050	F C	8.1	58 2.89 30	61 5.02 53	36 1.57 17	1.1 .03 17	0 .00 69	408 6.69 69	87 1.81 19	30 .85 9	20.0 .32 3	.20	--	526 494	396 61	0.8
05/10/74	5701	63	F		58	33	17	.9	.7	286	39	23	17.0	--	.2		280	
	5701	17	C	7.6	2.89 45	2.71 43	.74 12	.02 12	.02 73	4.69 73	.81 13	.65 10	.27 4	--	26.0	355	45	0.4
05/26/74	5701	63	F		44	32	19	.9	.9	260	33	20	9.0	--	.2		242	
	5701	17	C	7.7	2.20 39	2.63 46	.83 15	.02 15	.03 1	4.26 75	.69 12	.56 10	.15 3	--	25.0	312	27	0.5
07/21/74	5701	43			30	23	23	.4	.4	253	32	23	9.0	--	.1		230	
	5701			7.4	2.15 38	2.47 44	1.00 18	.01 18	.01 74	4.15 74	.67 12	.65 12	.15 3	--	27.0	312	23	0.7
05/26/74	5701	63	F		42	30	27	1.0	.9	260	28	27	8.0	--	.1		228	
	5701	17	C	7.7	2.10 36	2.47 43	1.17 20	.03 1	.03 1	4.26 74	.58 10	.76 13	.13 2	--	26.0	318	14	0.8

TABLE E-1 (CONTINUED)  
MINERAL ANALYSES OF GROUND WATER

DATE TIME	SAMPLER LAB	TEMP	FIELD LABORATORY PH	EC	MINERAL CONSTITUENTS IN					MILLIGRAMS PER LITER MILLIEQUIVALENTS PER LITER					MILLIGRAMS PER LITER				
					CA	MG	NA	K	CO3	HCO3	504	CL	NO3	B	F	TDS SUM	TH NCM	SAR	
.....																			
2																			
2-09																			
SAN FRANCISCO BAY REGION																			
SANTA CLARA VALLEY																			
2-09.02																			
SOUTH BAY AREA																			
06/10/74	5701	M	65 F		54	37	27	.9	.9	311	55	20	11.0	--	.2	288			
	5701		18 C 7.7	624	2.69	3.04	1.17	.02	.03	5.10	1.15	.56	.18	--	28.0	387	30		
					39	44	17			73	16	8	3						
08/30/74	5701	M	65 F		44	41	28	.8	.5	302	58	21	13.0	--	.3	279			
	5701		18 C 7.4	632	2.20	3.37	1.22	.02	.02	4.95	1.21	.59	.21	--	32.0	387	30		
					32	49	18			71	17	8	3						
09/26/74	2400	M	66 F		108	55	138	1.7	0	642	101	91	52.0	.30	--	824	495		
	0945		19 C 7.8	1440	5.39	4.52	6.00	.04	.00	10.52	2.10	2.57	.84	--	--	863	0		
					34	28	38			66	13	16	5						
09/26/74	2400	M	69 F		57	26	82	1.5	0	388	53	39	7.8	.20	--	464	248		
	1015		21 C 8.0	825	2.84	2.14	3.57	.04	.00	6.36	1.10	1.10	.13	--	--	457	0		
					33	25	42			73	13	13	1						
09/26/74	2400	M	64 F		50	58	52	.5	0	392	58	53	13.0	.10	--	514	363		
	1050		18 C 7.7	882	2.50	4.77	2.26	.01	.00	6.42	1.21	1.49	.21	--	--	477	43		
					26	50	24			69	13	16	2						
05/14/74	5701	M	60 F		42	28	16	1.1	1.0	222	36	21	9.0	--	.2	220			
	5701		16 C 7.8	486	2.10	2.30	.70	.03	.03	3.64	.75	.59	.15	--	23.0	286	37		
					41	45	14	1	1	71	15	11	3						
08/07/74	5701	M	65 F		46	26	18	1.0	.3	224	36	22	9.0	--	.1	224			
	5701		18 C 7.3	487	2.30	2.14	.78	.03	.01	3.67	.75	.62	.15	--	26.0	294	38		
					44	41	15	1		71	14	12	3						
05/14/74	5701	M	60 F		46	26	16	1.1	.4	233	34	20	8.0	--	.2	222			
	5701		16 C 7.4	488	2.30	2.14	.70	.03	.01	3.82	.71	.56	.13	--	22.0	288	31		
					44	41	14	1		73	14	11	2						
05/14/74	5701	M	60 F		43	25	15	1.0	.5	223	33	17	8.0	--	.2	210			
	5701		16 C 7.5	464	2.15	2.06	.65	.03	.02	3.65	.69	.48	.13	--	23.0	275	27		
					44	42	13	1		73	14	10	3						
05/10/74	5701	M	63 F		43	28	17	.8	.3	231	35	21	11.0	--	.2	222			
	5701		17 C 7.3	483	2.15	2.30	.74	.02	.01	3.79	.73	.59	.18	--	22.0	292	33		
					41	44	14			72	14	11	3						
05/10/74	5701	M	63 F		42	27	17	.7	.4	226	35	20	11.0	--	.2	216			
	5701		17 C 7.4	473	2.10	2.22	.74	.02	.01	3.70	.73	.56	.18	--	22.0	286	31		
					41	44	15			71	14	11	3						
05/10/74	5701	M	62 F		45	26	16	.7	.3	219	38	21	11.0	--	.2	220			
	5701		17 C 7.3	465	2.25	2.14	.70	.02	.01	3.59	.79	.59	.18	--	21.0	287	40		
					44	42	14			70	15	11	3						
05/26/74	5701	M	65 F		44	29	17	.8	.3	219	38	22	10.0	--	.1	228			
	5701		18 C 7.4	493	2.20	2.38	.74	.02	.01	3.59	.79	.62	.16	--	23.0	292	49		
					41	45	14			69	15	12	3						
06/02/74	5701	M	69 F		44	27	46	1.3	.5	226	34	63	21.0	--	.1	220			
	5701		21 C 7.5	655	2.20	2.22	2.00	.03	.02	3.70	.71	1.78	.34	--	24.0	372	35		
					34	34	31			56	11	27	5						
04/29/74	5701	M	62 F		62	34	17	1.0	.7	289	50	23	17.0	--	.1	292			
	5701		17 C 7.6	618	3.09	2.80	.74	.03	.02	4.74	1.04	.65	.27	--	26.0	373	57		
					46	42	11			71	15	10	4						
04/15/74	5701	M	65 F		68	42	23	1.0	.8	313	73	33	20.0	--	.1	344			
	5701		18 C 7.6	708	3.39	3.45	1.00	.03	.03	5.13	1.52	.93	.32	--	24.0	439	84		
					43	44	13			65	19	12	4						
04/15/74	5701	M	65 F		70	49	28	1.0	.7	343	84	39	20.0	--	.1	376			
	5701		18 C 7.5	787	3.49	4.03	1.22	.03	.02	5.62	1.75	1.10	.32	--	25.0	485	94		
					40	46	14			64	20	12	4						
03/19/74	5701	M	64 F		66	36	24	1.0	.7	311	59	31	9.0	--	.1	314			
	5701		18 C 7.5	670	3.29	2.96	1.04	.03	.02	5.10	1.23	.87	.15	--	25.0	405	57		
					45	40	14			69	17	12	2						



TABLE E-1 (CONTINUED)  
MINERAL ANALYSES OF GROUND WATER

DATE TIME	SAMPLER LAB	TEMP	FIELD LABORATORY PH	EC	MINERAL CONSTITUENTS IN					MILLIGRAMS PER LITER MILLIEQUIVALENTS PER LITER PERCENT REACTANCE VALUE					MILLIGRAMS PER LITER				
					CA	MG	NA	K	CO3	HCO3	SO4	CL	NO3	8	F	TDS SUM	TH NCH	SAR	
2 2-09																			
SAN FRANCISCO BAY REGION																			
SANTA CLARA VALLEY																			
SOUTH BAY AREA																			
2-09.02																			
08S/01E-10K03																			
03/19/74	5701	65	F		61	46	23	.7	.7	321	68	33	19.0	--	.2		340		
	5701	18	C	7.5	751	3.04	1.00	.02	.02	5.26	1.42	.93	.31	--	26.0		435	77	0.5
					39	48	13			66	18	12	4						
08S/01E-27C02																			
09/26/74	2400	68	F		--	--	29	--	0	354	--	22	--	--	--		366		
1250	5050	20	C	7.7	793	--	1.26	--	.00	5.80	--	.62	--	--	--				0.7
							15												
08S/02E-34A01																			
09/26/74	2400	70	F		54	28	22	.7	0	228	60	15	22.0	.20	--		342	248	
1210	5050	21	C	7.4	563	2.69	2.30	.96	.02	3.74	1.25	.42	.35	--	--		314	63	0.6
					45	39	16			65	22	7	6						
06S/01W-11801																			
09/26/74	2400	68	F		--	--	39	--	0	307	--	21	--	--	--		249		
1225	5050	20	C	8.0	636	--	1.70	--	.00	5.03	--	.59	--	--	--				1.1
							25												
06S/01W-14E01																			
09/26/74	2400	69	F		--	--	50	--	0	288	--	35	--	--	--		240		
1105	5050	21	C	8.2	667	--	2.18	--	.00	4.72	--	.99	--	--	--				1.4
							31												
06S/02W-08N01																			
03/11/74	5701	64	F		85	33	27	1.1	1.2	339	35	55	27.0	--	.1		346		
	5701	18	C	7.7	772	4.24	2.71	1.17	.03	5.56	.73	1.55	.44	--	34.0		465	68	0.6
					52	33	14			67	9	19	5						
06S/02W-09Q02																			
09/26/74	2400	67	F		58	23	50	1.4	0	283	64	27	.8	.20	--		362	236	
1000	5050	19	C	8.0	646	2.89	1.89	2.18	.04	4.64	1.33	.76	.01	--	--		364	7	1.4
					41	27	31	1		69	20	11							
06S/02W-20N01																			
05/04/74	5701	66	F		74	25	24	1.1	1.2	339	16	26	12.0	--	.1		288		
	5701	19	C	7.7	624	3.69	2.06	1.04	.03	5.56	.33	.73	.19	--	31.0		377	8	0.6
					54	30	15		1	81	5	11	3						
06S/02W-28N02																			
03/11/74	5701	65	F		98	36	24	1.2	1.2	346	49	68	32.0	.10	.1		396		
	5701	18	C	7.7	840	4.89	2.96	1.04	.03	5.67	1.02	1.92	.52	--	32.0		512	107	0.5
					55	33	12			62	11	21	6						
06S/02W-29802																			
05/04/74	5701	63	F		97	32	37	1.4	1.4	412	23	49	32.0	--	.1		372		
	5701	17	C	7.7	841	4.84	2.63	1.61	.04	6.75	.48	1.38	.52	--	31.0		506	34	0.8
					53	29	18		1	74	5	15	6						
06S/02W-29J02																			
05/05/74	5701	64	F		94	34	30	1.3	1.0	366	24	59	45.0	--	.1		374		
	5701	18	C	7.6	825	4.69	2.80	1.31	.03	6.00	.50	1.66	.73	--	33.0		501	73	0.7
					53	32	15			67	6	19	8						
06S/02W-29K05																			
03/11/74	5701	71	F		66	26	42	1.1	.5	360	16	35	15.0	--	.2		272		
	5701	22	C	7.4	661	3.29	2.14	1.83	.03	5.90	.33	.99	.24	--	32.0		411	0	1.1
					45	29	25			79	4	13	3						
06S/02W-29M02																			
05/04/74	5701	62	F		74	35	26	1.0	1.0	374	26	35	13.0	--	.1		330		
	5701	17	C	7.6	708	3.69	2.88	1.13	.03	6.13	.54	.99	.21	--	30.0		425	21	0.6
					48	37	15			78	7	13	3						
06S/02W-32D01																			
01/26/74	5701	61	F		94	51	22	.9	.6	423	40	57	23.0	--	.1		442		
	5701	16	C	7.4	898	4.69	4.19	.96	.02	6.93	.83	1.61	.37	--	25.0		521	97	0.5
					48	42	10			71	9	16	4						
06S/02W-34G02																			
05/05/74	5701	61	F		105	45	22	1.0	.8	428	41	59	25.0	--	.2		448		
	5701	16	C	7.5	896	5.24	3.70	.96	.03	7.01	.85	1.66	.40	--	25.0		534	95	0.5
					53	37	10			70	9	17	4						
06S/02W-34K02																			
09/07/74	5701	70	F		69	17	22	1.3	1.4	252	30	29	23.0	--	.2		243		
	5701	21	C	7.9	584	3.44	1.40	.96	.03	4.13	.62	.82	.37	--	26.0		343	33	0.6
					59	24	16	1	1	69	10	14	6						
06S/02W-34M02																			
09/08/74	5701	64	F		65	17	24	1.2	1.4	254	31	25	17.0	--	.2		231		
	5701	18	C	7.9	554	3.24	1.40	1.04	.03	4.16	.65	.71	.27	--	26.0		332	22	0.7
					57	25	18	1	1	71	11	12	5						
06S/02W-34M01																			
09/26/74	2400	66	F		--	--	22	--	0	309	--	46	--	--	--		338		
1330	5050	19	C	8.0	756	--	.96	--	.00	5.06	--	1.30	--	--	--				0.5
							12												

TABLE E-1 (CONTINUED)  
MINERAL ANALYSES OF GROUND WATER

DATE TIME	SAMPLER LAB	TEMP	FIELD LABORATORY PH	EC	MINERAL CONSTITUENTS IN					MILLIGRAMS PER LITER MILLIEQUIVALENTS PER LITER					MILLIGRAMS PER LITER				
					CA	MG	NA	K	CO3	HCO3	SO4	CL	NO3	B	F	TDS SUM	TM NCH	SAR	
																			PERCENT REACTANCE VALUE
2 2-09																			
SAN FRANCISCO BAY REGION																			
SANTA CLARA VALLEY																			
2-09.02																			
SOUTH BAY AREA																			
01/26/74	5701	62	F		102	31	23	1.0	.6	350	30	52	57.0		--	.2		382	
	5701	17	C	7.4	817	5.09	2.55	1.00	.03	.02	5.74	.62	1.47	.92		28.0	497	94	0.5
06S/02W-34N01																			
09/08/74	5701	70	F		62	24	28	1.1	1.1	264	20	38	37.0		--	.2		256	
	5701	21	C	7.8	620	3.09	1.97	1.22	.03	.04	4.33	.42	1.07	.60		33.0	374	35	0.8
06S/02W-34N03																			
07/30/74	5701	69	F		66	29	37	1.5	.8	297	20	56	23.0		--	.1		286	
	5701	21	C	7.6	695	3.29	2.38	1.61	.04	.03	4.87	.42	1.58	.37		33.0	412	39	1.0
07S/01W-06P01																			
09/06/74	5701	64	F		59	16	29	1.3	.6	246	21	33	14.0		--	.2		214	
	5701	18	C	7.6	541	2.94	1.32	1.26	.03	.02	4.03	.44	.93	.23		34.0	329	11	0.9
07S/01W-08K01																			
09/04/74	5701	63	F		52	20	17	1.2	.4	195	45	27	11.0		--	.1		210	
	5701	17	C	7.5	478	2.59	1.64	.74	.03	.01	3.20	.94	.76	.18		25.0	294	51	0.5
07S/01W-13E02																			
07/07/74	5701	65	F		50	21	18	1.5	1.1	201	45	27	9.0		--	.1		212	
	5701	18	C	7.9	492	2.50	1.73	.78	.04	.04	3.29	.94	.76	.15		23.0	294	45	0.5
07S/01W-13E03																			
07/07/74	5701	65	F		53	23	18	1.5	.8	196	46	29	10.0		--	.1		228	
	5701	18	C	7.8	493	2.64	1.89	.78	.04	.03	3.21	.96	.82	.16		23.0	301	65	0.5
07S/01W-13E04																			
06/21/74	5701	64	F		62	17	19	1.5	.4	212	46	27	13.0		--	.2		228	
	5701	18	C	7.5	520	3.09	1.40	.83	.04	.01	3.47	.96	.76	.21		23.0	313	51	0.6
07S/01W-13J06																			
07/12/74	5701	65	F		60	17	17	1.4	.3	205	44	31	11.0		--	.1		222	
	5701	18	C	7.4	503	2.99	1.40	.74	.04	.01	3.36	.92	.87	.18		24.0	306	51	0.5
07S/01W-13K03																			
09/17/74	5701	65	F		57	16	22	1.3	1.2	215	34	24	19.0		--	.3		210	
	5701	18	C	7.9	509	2.84	1.32	.96	.03	.04	3.52	.71	.68	.31		30.0	310	30	0.7
07S/01W-17P01																			
09/24/74	5701	65	F		55	17	23	1.0	.5	214	31	23	21.0		--	.2		206	
	5701	18	C	7.6	505	2.74	1.40	1.00	.03	.02	3.51	.65	.65	.34		30.0	307	31	0.7
07S/01W-20C01																			
09/17/74	5701	65	F		68	15	21	1.1	.6	214	36	31	30.0		--	.3		229	
	5701	18	C	7.6	548	3.39	1.23	.91	.03	.02	3.51	.75	.87	.48		28.0	336	55	0.6
07S/01W-20C01																			
04/15/74	5701	62	F		72	17	22	1.1	.6	233	45	31	28.0		--	.2		250	
	5701	17	C	7.6	572	3.59	1.40	.96	.03	.02	3.82	.94	.87	.45		25.0	356	58	0.6
07S/01W-20L01																			
04/15/74	5701	63	F		64	16	27	1.0	.8	233	36	26	24.0		--	.3		224	
	5701	17	C	7.7	525	3.19	1.32	1.17	.03	.03	3.82	.75	.73	.39		28.0	337	33	0.8
07S/01W-20L02																			
04/15/74	5701	63	F		68	16	23	1.0	.6	233	41	26	25.0		--	.2		236	
	5701	17	C	7.6	542	3.39	1.32	1.00	.03	.02	3.82	.85	.73	.40		27.0	342	44	0.7
07S/01W-20L03																			
03/04/74	5701	65	F		46	20	20	1.4	.4	209	23	22	24.0		--	.2		196	
	5701	18	C	7.5	476	2.30	1.64	.87	.04	.01	3.43	.48	.62	.39		30.0	290	25	0.6
07S/01W-22E05																			
03/04/74	5701	64	F		53	18	20	1.4	.5	214	26	22	30.0		--	.2		208	
	5701	18	C	7.5	509	2.64	1.48	.87	.04	.02	3.51	.54	.62	.48		27.0	303	30	0.6
07S/01W-22E06																			
04/21/74	5701	66	F		52	16	20	1.2	.3	199	31	21	25.0		--	.2		196	
	5701	19	C	7.4	462	2.59	1.32	.87	.03	.01	3.26	.65	.59	.40		27.0	291	32	0.6
07S/01W-22E08																			



TABLE E-1 (CONTINUED)  
MINERAL ANALYSES OF GROUND WATER

DATE TIME	SAMPLER LAB	TEMP	FIELD LABORATORY PH EC	MINERAL CONSTITUENTS IN					MILLIGRAMS PER LITER MILLIEQUIVALENTS PER LITER PERCENT REACTANCE VALUE					MILLIGRAMS PER LITER					
				CA	MG	NA	K	CO3	HCO3	SO4	CL	NO3	B SIO2	F	TD5 SUM	TM NCH	SAR		
2 2-09				SAN FRANCISCO BAY REGION SANTA CLARA VALLEY															
2-09.02 075/01W-22E10				SOUTH BAY AREA															
04/21/74	5701	M	66 F	7.4	473	50	19	19	1.2	.3	202	28	23	26.0	--	.2	204	0.6	
	5701		19 C			2.50 51	1.56 32	.83 17	.03 1	.01	3.31 67	.58 12	.65 13	.42 8					28.0
04/30/74	5701	M	63 F	7.7	490	56	17	19	1.2	.7	211	26	24	28.0	--	.1	212	0.6	
	5701		17 C			2.79 55	1.40 28	.83 16	.03 1	.02	3.46 67	.54 10	.68 13	.45 9					29.0
08/27/74	5701	M	68 F	7.3	476	43	23	18	1.0	.3	190	30	25	26.0	--	.2	202	0.6	
	5701		20 C			2.15 44	1.89 39	.78 16	.03 1	.01	3.11 64	.62 13	.71 15	.42 9					30.0
09/30/74	5701	M	69 F	7.3	518	51	24	19	1.1	.3	210	33	25	30.0	--	.2	225	0.6	
	5701		21 C			2.54 47	1.97 37	.83 15	.03 1	.01	3.44 65	.69 13	.71 13	.48 9					31.0
08/27/74	5701	M	67 F	7.4	509	47	24	20	1.1	.4	210	28	25	33.0	--	.2	215	0.6	
	5701		19 C			2.35 45	1.97 38	.87 17	.03 1	.01	3.44 65	.58 11	.71 13	.53 10					30.0
02/25/74	5701	M	61 F	7.6	556	51	18	32	1.4	.5	188	42	53	5.0	--	.1	202	1.0	
	5701		16 C			2.54 47	1.48 27	1.39 26	.04 1	.02	3.08 56	.87 16	1.49 27	.08 1					25.0
03/19/74	5701	M	63 F	7.7	476	63	11	21	1.3	.6	189	46	33	5.0	--	.2	204	0.6	
	5701		17 C			3.14 63	.90 18	.91 18	.03 1	.02	3.10 61	.96 19	.93 18	.08 2					24.0
04/30/74	5701	M	63 F	7.7	442	53	15	15	1.2	.6	165	47	31	8.0	--	.2	192	0.5	
	5701		17 C			2.64 58	1.23 27	.65 14	.03 1	.02	2.70 57	.98 21	.87 19	.13 3					24.0
05/10/74	5701	M	62 F	7.8	463	61	11	17	1.1	.8	181	45	28	7.0	--	.2	196	0.5	
	5701		17 C			3.04 65	.90 19	.74 16	.03 1	.03	2.97 61	.94 19	.79 16	.11 2					24.0
02/25/74	5701	M	61 F	7.5	500	51	18	23	1.4	.4	188	44	35	6.0	--	.1	200	0.7	
	5701		16 C			2.54 50	1.48 29	1.00 20	.04 1	.01	3.08 60	.92 18	.99 19	.10 2					26.0
03/24/74	5701	M	63 F	7.8	457	50	16	24	1.2	.8	206	45	20	6.0	--	.1	192	0.8	
	5701		17 C			2.50 51	1.32 27	1.04 21	.03 1	.03	3.38 67	.94 19	.56 11	.10 2					26.0
03/20/74	5701	M	62 F	7.6	455	52	17	17	1.2	.5	175	45	31	5.0	--	.2	198	0.5	
	5701		17 C			2.59 54	1.40 29	.74 16	.03 1	.02	2.87 60	.94 20	.87 18	.08 2					22.0
02/25/74	5701	M	63 F	7.6	551	65	16	23	1.7	.5	214	44	33	18.0	--	.1	228	0.7	
	5701		17 C			3.24 58	1.32 24	1.00 18	.04 1	.02	3.51 62	.92 16	.93 16	.29 5					25.0
04/14/74	5701	M	64 F	7.8	535	62	14	28	1.5	.9	220	48	27	14.0	--	.1	212	0.8	
	5701		18 C			3.09 56	1.15 21	1.22 22	.04 1	.03	3.61 64	1.00 18	.76 13	.23 4					24.0
02/25/74	5701	M	63 F	7.5	547	59	17	27	1.6	.4	209	45	35	12.0	--	.1	218	0.8	
	5701		17 C			2.94 53	1.40 25	1.17 21	.04 1	.01	3.43 62	.94 17	.99 18	.19 3					25.0
04/29/74	5701	M	63 F	7.8	531	62	14	32	1.5	.9	228	42	29	15.0	--	.2	210	1.0	
	5701		17 C			3.09 54	1.15 20	1.39 25	.04 1	.03	3.74 66	.87 15	.82 14	.24 4					25.0
07/12/74	5701	M	63 F	7.7	455	55	15	16	1.2	.6	177	46	33	4.0	--	.2	198	0.5	
	5701		17 C			2.74 58	1.23 26	.70 15	.03 1	.02	2.90 60	.96 20	.93 19	.06 1					21.0
07/07/74	5701	M	64 F	7.6	452	53	15	16	1.3	.5	168	46	34	4.0	--	.2	192	0.5	
	5701		18 C			2.64 57	1.23 27	.70 15	.03 1	.02	2.75 58	.96 20	.96 20	.06 1					20.0

TABLE E-1 (CONTINUED)  
MINERAL ANALYSES OF GROUND WATER

DATE TIME	SAMPLER LAB	TEMP	FIELD LABORATORY PH EC	MINERAL CONSTITUENTS IN					MILLIGRAMS PER LITER MILLIEQUIVALENTS PER LITER PERCENT REACTANCE VALUE					MILLIGRAMS PER LITER				
				CA	MG	NA	K	CO3	HCO3	SO4	CL	NO3	SIO2	F SUM	TM NCH	SAR		
2 2-09 2-09.02 075/01W-26R04 M SOUTH BAY AREA																		
06/11/74	5701			7.5	449	58 2.89 65	10 .82 18	17 .74 17	1.1 .03 1	.4 .01	168 2.75 60	46 .96 21	30 .85 18	3.0 .05 1	--	.2 23.0	271	186 48 0.5
08/12/74	5701			7.2	446	39 1.95 44	21 1.73 39	16 .70 16	1.1 .03 1	.2 .01	156 2.56 58	38 .79 18	32 .90 20	9.0 .15 3	--	.1 23.0	256	184 56 0.5
08/18/74	5701			7.4	507	47 2.35 45	23 1.89 36	23 1.00 19	1.3 .03 1	.3 .01	188 3.08 58	45 .94 18	32 .90 17	24.0 .39 7	--	.1 30.0	318	214 58 0.7
08/18/74	5701			7.4	512	48 2.40 45	23 1.89 36	22 .96 18	1.3 .03 1	.3 .01	185 3.03 57	42 .87 16	35 .99 19	27.0 .44 8	--	.1 31.0	321	216 63 0.7
08/27/74	5701			7.5	498	44 2.20 43	25 2.06 40	19 .83 16	1.1 .03 1	.4 .01	175 2.87 55	48 1.00 19	27 .76 15	34.0 .55 11	--	.1 31.0	316	215 69 0.6
07/30/74	5701			7.7	618	64 3.19 48	22 1.81 27	37 1.61 24	1.3 .03	1.0 .03	296 4.85 74	23 .48 7	37 1.04 16	12.0 .19 3	--	.1 33.0	376	252 6 1.0
01/26/74	5701			7.4	582	71 3.54 57	17 1.40 23	28 1.22 20	1.4 .04 1	.5 .02	277 4.54 72	32 .67 11	27 .76 12	22.0 .35 6	--	.2 26.0	361	248 19 0.8
01/26/74	5701			7.4	602	68 3.39 55	19 1.56 25	28 1.22 20	1.4 .04 1	.4 .01	277 4.54 73	31 .65 10	31 .87 14	11.0 .18 3	--	.2 27.0	353	250 20 0.8
03/11/74	5701			7.5	687	70 3.49 49	23 1.89 26	40 1.74 24	1.4 .04 1	.6 .02	292 4.79 65	33 .69 9	52 1.47 20	22.0 .35 5	--	.1 35.0	421	270 29 1.1
01/26/74	5701			7.5	624	66 3.29 50	19 1.56 24	38 1.65 25	1.3 .03	.6 .02	306 5.02 75	19 .40 6	38 1.07 16	12.0 .19 3	--	.2 33.0	377	244 0 1.1
07/30/74	5701			7.7	667	79 3.94 55	22 1.81 25	31 1.35 19	1.4 .04 1	1.0 .03	299 4.90 69	33 .69 10	41 1.16 16	19.0 .31 4	--	.1 35.0	409	290 41 0.8
03/11/74	5701			7.2	599	75 3.74 58	19 1.56 24	25 1.09 17	1.2 .03	.3 .01	282 4.62 71	30 .62 10	31 .87 13	22.0 .35 5	--	.1 25.0	367	268 34 0.7
03/11/74	5701			7.2	600	75 3.74 58	21 1.73 27	23 1.00 15	1.2 .03	.3 .01	292 4.79 73	28 .58 9	32 .90 14	20.0 .32 5	--	.3 23.0	367	276 34 0.6
09/07/74	5701			7.7	548	75 3.74 67	10 .82 15	23 1.00 18	1.1 .03 1	.8 .03 1	258 4.23 73	31 .65 11	29 .82 14	4.0 .06 1	--	.2 27.0	328	231 15 0.7
07/30/74	5701			7.5	779	87 4.34 53	35 2.88 35	23 1.00 12	.9 .02	.7 .02	324 5.31 65	27 .56 7	53 1.49 18	51.0 .82 10	--	.1 30.0	467	362 95 0.5
01/26/74	5701			7.4	640	74 3.69 56	20 1.64 25	28 1.22 19	1.1 .03	.5 .02	270 4.43 66	19 .40 6	45 1.27 19	37.0 .60 9	--	.2 32.0	389	266 44 0.7
05/05/74	5701			7.5	532	68 3.39 61	15 1.23 22	20 .87 16	1.3 .03 1	.5 .02	231 3.79 68	30 .62 11	34 .96 17	10.0 .16 3	--	.2 23.0	315	232 41 0.6
09/07/74	5701			7.6	507	47 2.35 46	17 1.40 28	30 1.31 26	.9 .02	.5 .02	209 3.43 65	12 .25 5	40 1.13 22	26.0 .42 8	--	.2 36.0	312	189 15 1.0



TABLE E-1 (CONTINUED)  
MINERAL ANALYSES OF GROUND WATER

DATE TIME	SAMPLER LAB	TEMP	FIELD LABORATORY PH EC	MINERAL CONSTITUENTS IN										MILLIGRAMS PER LITER MILLIEQUIVALENTS PER LITER PERCENT REACTANCE VALUE					MILLIGRAMS PER LITER				
				CA	MG	NA	K	CO3	HCO3	SO4	CL	NO3	B	F	TDS SUM	TH NCH	SAR						
.....																							
2		SAN FRANCISCO BAY REGION																					
2-09		SANTA CLARA VALLEY																					
2-09.02		SOUTH BAY AREA																					
08/03/74	5701	65	F		66	26	30	1.0	.4	312	31	29	21.0	--	.1		272						
	5701	18	C	7.3	3.29 49	2.14 32	1.31 19	.03	.01	5.11 74	.65 9	.82 12	.34 5	33.0	391	16	0.8						
09/23/74	5701				54	42	36	1.5	.3	168	17	151	22.0	--	.2		306						
	5701			7.4	2.69 35	3.45 45	1.57 20	.04 1	.01	2.75 36	.35 5	4.26 55	.35 5	38.0	444	169	0.9						
2-10		LIVERMORE VALLEY																					
08/16/74	5100	70	F		72	42	361	.8	0	487	68	423	81.0	6.80	--	1290	352						
	5050	21	C	8.0	3.59 16	5.45 15	15.70 69	.02	.00	7.98 35	1.42 6	11.93 53	1.31 6	--	1294	0	8.4						
07/22/74	5100	66	F		--	--	141	--	0	444	--	173	--	--	--		391						
	5050	19	C	8.1	--	--	6.13 44	--	.00	7.28	--	4.88	--	--	--		3.1						
07/22/74	5100	64	F		37	28	123	.9	0	361	51	94	.5	.90	--	480	214						
	5050	18	C	8.3	1.85 19	2.30 24	5.35 56	.02	.00	5.92 61	1.06 11	2.65 27	.01	--	513	0	3.7						
07/22/74	5100	65	F		106	66	114	2.7	0	528	85	161	32.0	1.60	--	858	535						
	5050	18	C	7.9	5.29 34	5.43 34	4.96 31	.07	.00	8.65 56	1.77 11	4.54 29	.52 3	--	828	104	2.1						
08/05/74	5100	64	F		66	74	100	2.4	0	419	79	159	39.0	1.00	--	748	470						
	5050	18	C	8.0	3.29 24	6.09 44	4.35 32	.06	.00	6.87 50	1.64 12	4.48 33	.63 5	--	726	126	2.0						
07/22/74	5100	66	F		--	--	--	--	--	--	--	--	--	--	--	395							
	5050	19	C	8.1	--	--	--	--	--	--	--	--	--	--	--	--							
07/30/74	5100	63	F		77	92	44	2.1	0	440	63	137	50.0	.30	--	667	572						
	5050	17	C	8.1	3.84 29	7.57 57	1.91 14	.05	.00	7.21 55	1.31 10	3.86 29	.81 6	--	682	210	0.8						
07/22/74	5100	70	F		--	--	95	--	0	384	--	135	--	--	--	390							
	5050	21	C	8.1	--	--	4.13 35	--	.00	6.29	--	3.81	--	--	--	2.1							
07/17/74	5100	66	F		--	--	52	--	0	288	--	56	--	--	--	276							
	5050	19	C	7.5	--	--	2.26 29	--	.00	4.72	--	1.58	--	--	--	1.4							
07/30/74	5100	72	F		53	57	29	2.0	0	343	41	48	40.0	.30	--	450	368						
	5050	22	C	8.2	2.64 31	4.69 54	1.26 15	.05 1	.00	5.62 66	.85 10	1.35 16	.65 8	--	439	86	0.7						
03/20/74	5701	68	F		24	14	57	1.7	.7	211	19	31	3.0	.20	.2	116							
	5701	20	C	7.7	1.20 25	1.15 24	2.48 51	.04 1	.02	3.46 72	.40 8	.87 18	.05 1	29.0	283	0	2.3						
05/07/74	5701	69	F		52	54	34	2.0	1.5	356	49	50	29.0	.49	.1	354							
	5701	21	C	7.8	2.59 30	4.44 52	1.48 17	.05 1	.05	5.83 66	1.02 12	1.41 16	.47 5	29.0	476	58	0.8						
05/07/74	5701	69	F		50	57	30	1.8	1.1	332	45	50	54.0	.46	.2	360							
	5701	21	C	7.7	2.50 29	4.69 55	1.31 15	.05 1	.04	5.44 63	.94 11	1.41 16	.87 10	26.0	479	86	0.7						
03/11/74	5701	68	F		42	38	66	1.7	1.0	293	38	67	39.0	.62	.1	262							
	5701	20	C	7.7	2.10 26	3.13 38	2.87 35	.04 1	.03	4.80 59	.79 10	1.89 23	.63 8	30.0	467	20	1.8						
07/30/74	5100	74	F		--	--	46	--	0	288	--	66	--	--	--	330							
	5050	23	C	7.9	--	--	2.00 23	--	.00	4.72	--	1.86	--	--	--	1.1							
07/24/74	5701	68	F		56	68	30	1.8	.7	402	51	53	29.0	.43	.1	420							
	5701	20	C	7.4	2.79 29	5.59 57	1.31 13	.05 1	.02	6.59 68	1.06 11	1.49 15	.47 5	29.0	517	89	0.6						

### MINERAL ANALYSES OF GROUND WATER

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TABLE E-1 (CONTINUED)  
MINERAL ANALYSES OF GROUND WATER

DATE TIME	SAMPLER LAB	TEMP	FIELD LABORATORY PH EC	MINERAL CONSTITUENTS IN							MILLIGRAMS PER LITER MILLIEQUIVALENTS PER LITER PERCENT REACTANCE VALUE					MILLIGRAMS PER LITER				
				CA	MG	NA	K	CO3	HC03	SO4	CL	NO3	B	F	TDS SUM	TH NCH	SAR			
.....																				
2		SAN FRANCISCO BAY REGION																		
2-26		PESCADERO VALLEY																		
08S/05W-10E01 M																				
08/29/74 1115	5050 5050	61	F	7.3	975	61	31	68	3.2	0	284	59	94	.9	.20	--	437	280		
		16	C	8.2	848	3.04 35	2.55 30	2.96 34	.08 1	.00	4.65 54	1.23 14	2.65 31	.01	--	--	457	47	1.8	
2-80		MISCELLANEOUS AREA																		
03S/05W-20F01 M																				
06/07/74	5701 5701	65	F			45	46	58	2.5	.4	241	55	92	52.0	--	.1		300		
		18	C	7.4	869	2.25 26	3.78 44	2.52 29	.06 1	.01	3.95 46	1.15 13	2.59 30	.84 10	43.0	512	104	1.5		
08/08/74	5701 5701	66	F			44	48	64	2.4	.7	241	59	93	70.0	--	.1		306		
		19	C	7.6	868	2.20 24	3.95 44	2.78 31	.06 1	.02	3.95 44	1.23 14	2.62 29	1.13 13	48.0	548	109	1.6		
03S/05W-20K01 M																				
03/20/74	5701 5701	64	F			47	45	76	3.1	.6	272	69	117	10.0	--	.2		302		
		18	C	7.5	916	2.35 25	3.70 39	3.31 35	.08 1	.02	4.46 48	1.44 15	3.30 35	.16 2	50.0	551	79	1.9		
03S/05W-20K02 M																				
02/12/74	5701 5701	64	F			35	34	52	2.1	.4	172	45	76	59.0	.14	.1		228		
		18	C	7.5	727	1.75 26	2.80 41	2.26 33	.05 1	.01	2.82 41	.94 14	2.14 31	.95 14	40.0	428	86	1.5		
03S/05W-20K03 M																				
09/12/74	5701 5701	66	F			55	55	66	2.4	.8	297	74	125	30.0	--	.1		364		
		19	C	7.6	1012	2.74 27	4.52 44	2.87 28	.06 1	.03	4.87 47	1.54 15	3.53 34	.48 5	45.0	599	118	1.5		
03S/05W-20K04 M																				
03/20/74	5701 5701	64	F			57	40	72	2.6	.8	262	64	116	15.0	--	.1		306		
		18	C	7.7	916	2.84 30	3.29 35	3.13 34	.07 1	.03	4.29 47	1.33 15	3.27 36	.24 3	44.0	540	91	1.8		
03S/05W-20K05 M																				
08/08/74	5701 5701	68	F			44	47	58	2.0	1.0	228	63	113	19.0	--	.1		302		
		20	C	7.8	840	2.20 25	3.87 45	2.52 29	.05 1	.03	3.74 44	1.31 15	3.19 37	.31 4	39.0	498	115	1.4		
03S/05W-20K06 M																				
08/08/74	5701 5701	74	F			91	38	92	5.0	1.1	255	163	141	4.0	.10	.1		384		
		23	C	7.8	1144	4.54 38	3.13 27	4.00 34	.13 1	.04	4.18 36	3.39 29	3.98 34	.06 1	35.0	696	173	2.0		

TABLE E-1 (CONTINUED)  
MINERAL ANALYSES OF GROUND WATER

DATE TIME	SAMPLER LAB	TEMP	FIELD LABORATORY PH	EC	MINERAL CONSTITUENTS IN					MILLIGRAMS PER LITER MILLIEQUIVALENTS PER LITER PERCENT REACTANCE VALUE					MILLIGRAMS PER LITER					
					CA	MG	NA	K	CO3	HC03	504	CL	NO3	B 5102	F	TDS SUM	TH NCH	SAR		
CENTRAL COASTAL REGION																				
SOQUEL VALLEY																				
3-01																				
08/28/74 1050	5050	M	67 19	F C	7.7 8.3	535	26	38	24	2.0	0	239	35	27	.0	.00	--	300	220	0.7
						517	1.30	3.13	1.04	.05	.00	3.92	.73	.76	.00	--	270	26		
08/28/74 0945	5050	M	85 29	F C	8.9 8.7	675	14	6.6	125	1.8	13	290	42	24	2.0	.60	--	423	62	6.9
						656	.70	.54	5.44	.05	.43	4.75	.87	.68	.03	--	372	0		
08/28/74 0830	5050	M	68 20	F C	8.1 8.2	570	22	28	47	3.4	0	230	29	36	1.4	.00	--	304	172	1.6
						538	1.10	2.30	2.04	.09	.00	3.77	.60	1.02	.02	--	280	0		
3-02																				
PAJARO VALLEY																				
08/30/74	5115 5050	M	61.0F 16.1C		8.0	1430	100	92	71	2.1	0	563	238	50	10.0	.40	--	756	627	1.2
							4.99	7.57	3.09	.05	.00	9.23	4.96	1.41	.16	--	640	167		
08/28/74	5115 5050	M		7.9	597	40	31	38	3.7	0	263	49	27	4.4	.10	--	334	226	1.1	
						2.00	2.55	1.65	.09	.00	4.31	1.02	.76	.07	--	323	12			
08/28/74	5115 5050	M		8.3	839	44	41	52	2.4	0	134	59	77	131	.10	--	537	280	1.4	
						2.20	3.37	2.26	.06	.00	2.20	1.23	2.17	2.11	--	472	169			
08/28/74	5115 5050	M	66 19	F C	8.1	641	31	27	48	1.9	0	103	59	53	83.0	.00	--	411	189	1.5
							1.55	2.22	2.09	.05	.00	1.69	1.23	1.49	1.34	--	354	104		
08/30/74	5115 5050	M		8.0	461	24	15	41	1.0	0	134	15	52	14.0	.00	--	287	121	1.6	
						1.20	1.23	1.78	.03	.00	2.20	.31	1.47	.23	--	228	12			
08/28/74	5115 5050	M		8.0	693	44	19	56	1.0	0	71	39	101	86.0	.00	--	456	187	1.8	
						2.20	1.56	2.44	.03	.00	1.16	.81	2.85	1.39	--	381	130			
08/28/74	5115 5050	M		7.6	5460	260	243	535	9.0	0	259	311	1620	3.9	.30	--	3620	1650	5.7	
						12.97	19.98	23.27	.23	.00	4.25	6.48	45.68	.06	--	3110	1436			
08/28/74	5115 5050	M		7.5	312	14	11	27	1.1	0	66	5.4	32	41.0	.00	--	237	81	1.3	
						.70	.90	1.17	.03	.00	1.08	.11	.90	.66	--	164	26			
08/29/74	5115 5050	M		8.2	250	8.8	5.8	34	.9	0	66	5.3	30	18.0	.00	--	193	46	2.2	
						.44	.48	1.48	.02	.00	1.08	.11	.85	.29	--	135	0			
08/28/74	5115 5050	M	63 17	F C	8.3	1510	105	75	104	4.3	0	350	266	120	74.0	.30	--	1010	572	1.9
							5.24	6.17	4.52	.11	.00	5.74	5.54	3.38	1.19	--	921	284		
08/28/74	5115 5050	M	65 18	F C	8.0	3250	148	109	319	7.0	0	172	282	659	205	.20	--	2120	820	4.9
							7.39	8.96	13.88	.18	.00	2.82	5.87	18.58	3.31	--	1814	677		
08/28/74	5115 5050	M	67 19	F C	8.1	1786	93	63	161	4.8	0	188	149	308	114	.20	--	989	490	3.2
							4.64	5.18	7.00	.12	.00	3.08	3.10	8.69	1.84	--	985	337		
08/28/74	5115 5050	M		8.3	883	57	42	52	4.0	0	211	95	79	46.0	.20	--	560	314	1.3	
						2.84	3.45	2.26	.10	.00	3.46	1.98	2.23	.74	--	479	142			
08/28/74	5115 5050	M		8.1	495	23	14	52	1.6	0	173	8.7	56	2.6	.10	--	289	117	2.1	
						1.15	1.15	2.26	.04	.00	2.84	.18	1.58	.04	--	243	0			
08/29/74	5115 5050	M		7.8	259	9.2	6.8	31	.9	0	56	5.6	28	42.0	.00	--	230	51	1.9	
						.46	.56	1.35	.02	.00	.92	.12	.79	.68	--	151	5			



TABLE E-1 (CONTINUED)  
MINERAL ANALYSES OF GROUND WATER

DATE TIME	SAMPLER LAB	TEMP	FIELD LABORATORY PH	EC	MINERAL CONSTITUENTS IN					MILLIGRAMS PER LITER MILLIEQUIVALENTS PER LITER PERCENT REACTANCE VALUE					MILLIGRAMS PER LITER					
					CA	MG	NA	K	CO3	HCO3	SO4	CL	NO3	B SiO2	F	TDS SUM	TH NCH	SAR		
CENTRAL COASTAL REGION PAJARO VALLEY																				
3 3-02																				
13S/02E-13N01 M																				
08/29/74	5115 5050				8.0	235	9.2 .46 22	5.8 .48 23	26 1.13 54	1.1 .03 1	0 .00	66 1.08 51	3.8 .08 4	32 .90 43	2.7 .04 2	.00 --	-- --	174 113	47 0	1.7
13S/03E-04L01 M																				
08/28/74	5115 5050	68 F 20 C			8.2	306	10 .50 18	10 .82 29	34 1.48 52	.8 .02 1	0 .00	83 1.36 49	5.1 .11 4	42 1.18 42	8.8 .14 5	.00 --	-- --	226 152	66 0	1.8
GILROY-HOLLISTER VALLEY																				
3-03																				
3-03.01																				
SOUTH SANTA CLARA COUNTY																				
09S/03E-35D04 M																				
10/16/73	5050 1030				7.2 7.7		44 2.20 42	22 1.81 34	29 1.26 24	-- .00	0 .00	203 3.33 65	35 .73 14	18 .51 10	32.0 .52 10	-- --	-- --		201 34	0.9
02/26/74	5050 5050				7.6	513	36 1.80 34	26 2.14 41	30 1.31 25	1.1 .03 1	0 .00	204 3.34 65	35 .73 14	17 .48 9	36.0 .58 11	.10 --	-- --	302 282	195 30	0.9
04/02/74	5050 1000	64.4F 18.0C			7.7	410 484	40 2.00 41	21 1.73 35	26 1.13 23	1.1 .03 1	0 .00	193 3.16 66	36 .75 16	15 .42 9	29.0 .47 10	.10 --	-- --	287 263	186 29	0.8
05/14/74	5050 1130	68.0F 20.0C			7.6	496 506	42 2.10 41	21 1.73 34	29 1.26 25	1.0 .03 1	0 .00	202 3.31 65	35 .73 14	17 .48 9	34.0 .55 11	.10 --	-- --	300 278	191 26	0.9
06/13/74	5050 1058	70.0F 21.1C			7.7	470 487	41 2.05 41	21 1.73 35	27 1.17 23	1.0 .03 1	0 .00	197 3.23 65	38 .79 16	17 .48 10	30.0 .48 10	.10 --	-- --	300 272	187 28	0.9
07/23/74	5050 0953	67.1F 19.5C			8.0	440 484	41 2.05 41	22 1.81 36	26 1.13 23	1.0 .03 1	0 .00	196 3.21 66	38 .79 16	15 .42 9	28.0 .45 9	.10 --	-- --	280 267	192 33	0.8
08/21/74	5050 1100	69.8F 21.0C			8.0	418 497	42 2.10 43	20 1.64 33	26 1.13 23	1.2 .03 1	0 .00	198 3.25 67	35 .73 15	16 .45 9	28.0 .45 9	.10 --	-- --	285 266	187 25	0.8
09/26/74	5050 0900	62.6F 17.0C			8.1	375 490	41 2.05 41	21 1.73 34	28 1.22 24	1.2 .03 1	0 .00	199 3.26 66	36 .75 15	16 .45 9	30.0 .48 10	.10 --	-- --	289 271	187 26	0.9
09S/03E-35L05 M																				
10/16/73	5050 1050				7.8 8.1		48 2.40 42	25 2.06 36	28 1.22 21	-- .00	0 .00	187 3.06 56	41 .85 16	23 .65 12	54.0 .87 16	-- --	-- --		223 70	0.8
09S/03E-35P03 M																				
10/16/73	5050 0945				7.2 7.8		41 2.05 39	26 2.14 41	24 1.04 20	-- .00	0 .00	182 2.98 60	40 .83 17	20 .56 11	36.0 .58 12	-- --	-- --		207 61	0.7
10S/03E-02F03 M																				
10/16/73	5050 0930				6.8 7.3		100 4.99 36	78 6.41 46	56 2.44 18	-- .00	0 .00	794 13.01 94	2.8 .06 10	27 .76 5	.0 .00	-- --	-- --		570 0	1.0
05/14/74	5050 1200	62.6F 17.0C			7.3	405 479	33 1.65 32	28 2.30 45	27 1.17 23	.4 .01	0 .00	239 3.92 79	24 .50 10	13 .37 7	10.0 .16 3	.10 --	-- --	266 253	200 2	0.8
06/13/74	5050 1125	67.0F 19.4C			7.3	395 409	32 1.60 37	24 1.97 45	18 .78 18	.1 .00	0 .00	210 3.44 80	25 .52 12	10 .28 6	4.8 .08 2	.10 --	-- --	238 217	177 7	0.6
10S/03E-02F05 M																				
02/26/74	5050 5050				7.6	466	48 2.40 51	19 1.56 33	16 .70 15	.5 .01	0 .00	189 3.10 66	23 .48 10	18 .51 11	38.0 .61 13	.10 --	-- --	295 256	199 43	0.5
04/02/74	5050 0915	66.2F 19.0C			7.7	450 482	39 1.95 40	26 2.14 44	17 .74 15	.5 .01	0 .00	178 2.92 61	26 .54 11	20 .56 12	47.0 .76 16	.10 --	-- --	290 263	206 59	0.5
05/14/74	5050 1210	66.2F 19.0C			7.4	415 476	39 1.95 42	24 1.97 42	17 .74 16	.6 .02	0 .00	184 3.02 63	26 .54 11	18 .51 11	43.0 .69 14	.10 --	-- --	294 258	194 45	0.5
06/13/74	5050 1135	67.0F 19.4C			7.5	440 465	37 1.85 39	26 2.14 45	16 .70 15	.6 .02	0 .00	186 3.05 66	22 .46 10	18 .51 11	36.0 .58 13	.10 --	-- --	292 247	201 47	0.5
07/23/74	5050 0953	67.1F 19.5C			7.8	455 477	39 1.95 40	27 2.22 45	16 .70 14	.6 .02	0 .00	182 2.98 62	30 .62 13	19 .54 11	42.0 .68 14	.10 --	-- --	282 263	209 60	0.5
08/21/74	5050 1005	67.8F 19.9C			8.1	398 487	38 1.90 39	27 2.22 46	16 .70 14	.6 .02	0 .00	183 3.00 64	25 .52 11	20 .56 12	39.0 .63 13	.10 --	-- --	290 256	205 56	0.5
09/26/74	5050 1045	66.2F 19.0C			7.7	390 474	38 1.90 39	27 2.22 46	16 .70 14	.5 .01	0 .00	186 3.05 64	25 .52 11	18 .51 11	40.0 .65 14	.10 --	-- --	276 256	207 54	0.5

TABLE E-1 (CONTINUED)  
MINERAL ANALYSES OF GROUND WATER

DATE TIME	SAMPLER LAB	TEMP	FIELD LABORATORY PH	EC	MINERAL CONSTITUENTS IN					MILLIGRAMS PER LITER MILLIEQUIVALENTS PER LITER PERCENT REACTANCE VALUE					MILLIGRAMS PER LITER				
					CA	MG	NA	K	CO3	HCO3	SO4	CL	NO3	B	F	TDS SUM	TH NCM	SAR	
.....																			
3		CENTRAL COASTAL REGION																	
3-03		GILROY-MOLLISTER VALLEY																	
3-03.01		SOUTH SANTA CLARA COUNTY																	
10S/03E-02F06		M																	
10/16/73	5050		7.0		64	48	44	--	0	470	20	26	13.0	--	--		359		
0845	5050		7.8	828	3.19	3.95	1.91	.00	7.70	.42	.73	.21	--	--	--	446	0	1.0	
					35	44	21		85	5	8	2							
02/26/74	5050				44	25	19	.8	0	168	32	21	59.0	.00	--	330	212		
	5050		7.9	510	2.20	2.06	.83	.02	.00	2.75	.67	.59	.95	--	--	283	76	0.6	
					43	40	16			55	14	12	19						
04/02/74	5050	66.2F		460	41	26	17	1.1	0	167	32	23	57.0	.10	--	315	211		
0945	5050	19.0C	7.9	512	2.05	2.14	.74	.03	.00	2.74	.67	.65	.92	--	--	279	73	0.5	
					41	43	15	1		55	13	13	18						
05/14/74	5050	69.8F		495	40	27	19	.8	0	166	34	23	61.0	.10	--	335	211		
1107	5050	21.0C	7.4	512	2.00	2.22	.83	.02	.00	2.72	.71	.65	.98	--	--	287	75	0.6	
					39	44	16			54	14	13	19						
06/13/74	5050	72.0F		500	41	27	19	.6	0	174	33	23	52.0	.00	--	329	214		
1028	5050	22.2C	7.4	519	2.05	2.22	.83	.02	.00	2.85	.69	.65	.84	--	--	281	71	0.6	
					40	43	16			57	14	13	17						
07/23/74	5050	75.2F		500	42	28	21	.7	0	177	38	22	57.0	.00	--	321	220		
0900	5050	24.0C	7.7	529	2.10	2.30	.91	.02	.00	2.90	.79	.62	.92	--	--	296	75	0.6	
					39	43	17			55	15	12	18						
08/21/74	5050	69.8F		770	63	26	48	1.0	0	353	19	27	21.0	.10	--	447	266		
1034	5050	21.0C	8.0	849	3.14	2.14	2.09	.03	.00	5.79	.40	.76	.34	--	--	379	0	1.3	
					42	29	28			79	5	10	5						
09/26/74	5050	66.2F		850	75	53	62	1.0	0	578	14	27	13.0	.10	--	546	407		
0903	5050	19.0C	7.4	959	3.74	4.36	2.70	.03	.00	9.47	.29	.76	.21	--	--	529	0	1.3	
					35	40	25			88	3	7	2						
11S/04E-09R04		M																	
03/14/74	5050				49	20	32	1.1	0	239	32	17	21.0	.10	--	312	208		
1200	5050		8.0	530	2.45	1.64	1.39	.03	.00	3.92	.67	.48	.34	--	--	290	9	1.0	
					44	30	25	1		72	12	9	6						
3-04		SALINAS VALLEY																	
3-04.01		PRESSURE AREA																	
14S/03E-20F02		M																	
02/27/74	5701	72 F			37	11	37	2.1	.3	142	12	47	4.0	--	.4	278	139		
	5701	22 C	7.4	451	1.85	.90	1.61	.05	.01	2.33	.25	1.33	.06	--	.4	262	21	1.4	
					42	20	37	1		59	6	33	2						
04/05/74	5701				--	--	--	--	--	--	--	--	--	.02	--				
	5701																		
14S/03E-21L01		M																	
02/27/74	5701	73 F			36	8.0	45	1.9	.2	179	14	46	3.0	--	.4		123		
	5701	23 C	7.1	461	1.80	.66	1.96	.05	.01	2.93	.29	1.30	.05	--	.4	286	0	1.8	
					40	15	44	1		64	6	28	1						
14S/03E-22E01		M																	
01/15/74	5701	70 F			39	9.0	59	2.0	.1	205	10	61	2.0	--	.5		134		
	5701	21 C	7.0	532	1.95	.74	2.57	.05	.00	3.36	.21	1.72	.03	--	.5	328	0	2.2	
					37	14	48	1		63	4	32	1						
14S/03E-28M02		M																	
01/15/74	5701	69 F			98	33	78	4.5	.2	292	99	144	13.0	.17	.4		380		
	5701	21 C	7.0	1035	4.89	2.71	3.39	.12	.01	4.79	2.06	4.06	.21	--	.4	656	140	1.7	
					44	24	31	1		43	19	36	2						
14S/03E-28M03		M																	
09/18/74	5701	67 F			86	34	69	3.9	.4	258	84	150	16.0	--	.3		356		
	5701	19 C	7.4	1042	4.29	2.80	3.00	.10	.01	4.23	1.75	4.23	.26	--	.3	614	143	1.6	
					42	27	29	1		40	17	40	2						
14S/03E-28N01		M																	
04/05/74	5701	69 F			79	36	70	3.9	.2	266	113	118	14.0	--	.3		348		
	5701	21 C	7.1	971	3.94	2.96	3.05	.10	.01	4.36	2.35	3.33	.23	--	.3	608	127	1.6	
					39	29	30	1		42	23	32	2						
14S/03E-31L01		M																	
01/15/74	5701	69 F			57	11	43	4.0	.3	173	104	25	.0	--	.2		186		
	5701	21 C	7.5	560	2.84	.90	1.87	.10	.01	2.84	2.17	.71	.00	--	.2	369	45	1.4	
					50	16	33	2		50	38	12							
14S/03E-32B01		M																	
07/25/74	5701	71 F			102	41	80	4.1	.3	315	125	154	18.0	--	.3		424		
	5701	22 C	7.2	1184	5.09	3.37	3.48	.10	.01	5.16	2.60	4.34	.29	--	.3	723	165	1.7	
					42	28	29	1		42	21	35	2						
14S/03E-32N04		M																	
02/27/74	5701	72 F			61	16	50	3.9	.6	185	112	47	4.0	--	.2		218		
	5701	22 C	7.7	661	3.04	1.32	2.18	.10	.02	3.03	2.33	1.33	.06	--	.2	425	66	1.5	
					46	20	33	2		45	34	20	1						



TABLE E-1 (CONTINUED)  
MINERAL ANALYSES OF GROUND WATER

DATE TIME	SAMPLER LAB	TEMP	FIELD LABORATORY PH EC	MINERAL CONSTITUENTS IN				MILLIGRAMS PER LITER MILLIEQUIVALENTS PER LITER PERCENT REACTANCE VALUE					MILLIGRAMS PER LITER				
				CA	MG	NA	K	CO3	HCO3	SO4	CL	NO3	B SI02	F TDS SUM	TH NCH	SAR	
CENTRAL COASTAL REGION SALINAS VALLEY																	
3-04 3-04.01 14S/03E-33Q01																	
07/25/74	5701	67	F		77	32	63	3.3	.3	237	92	121	14.0	--	.3	322	
	5701	19	C	7.2 945	3.84 41	2.63 28	2.74 29	.08 1	.01	3.88 41	1.92 20	3.41 36	.23 2	40.0	559	129	1.5
14S/03E-33Q01																	
09/18/74	5701	71	F		95	38	69	3.9	.3	266	137	125	25.0	--	.4	393	
	5701	22	C	7.2 1082	4.74 43	3.13 29	3.00 27	.10 1	.01	4.36 39	2.85 26	3.53 32	.40 4	48.0	672	175	1.5
14S/03E-34C01																	
04/05/74	5701	70	F		38	11	36	2.2	.2	170	11	48	3.0	--	.4	138	
	5701	21	C	7.2 438	1.90 43	.90 20	1.57 35	.06 1	.01	2.79 63	.23 5	1.35 30	.05 1	43.0	276	0	1.3
14S/03E-35N01																	
04/05/74	5701	68	F		41	9.0	36	2.3	.1	136	8.0	65	12.0	.06	.3	140	
	5701	20	C	7.2 464	2.05 46	.74 17	1.57 36	.06 1	.00	2.23 50	.17 4	1.83 41	.19 4	40.0	280	28	1.3
15S/03E-03C01																	
02/27/74	5701	72	F		78	33	67	3.8	.2	236	100	128	12.0	--	.4	333	
	5701	22	C	7.0 980	3.89 40	2.71 28	2.91 30	.10 1	.01	3.87 40	2.08 21	3.61 37	.19 2	39.0	577	136	1.6
15S/03E-03N02																	
07/25/74	5701				89	33	80	4.4	.7	265	195	77	24.0	--	.3	356	
	5701			7.6 1010	4.44 41	2.71 25	3.48 32	.11 1	.02	4.34 40	4.06 37	2.17 20	.39 4	44.0	677	140	1.8
15S/03E-03R02																	
01/15/74	5701	69	F		64	26	66	4.1	.3	219	136	63	4.0	--	.4	266	
	5701	21	C	7.3 811	3.19 38	2.14 26	2.87 35	.10 1	.01	3.59 43	2.83 34	1.78 22	.06 1	42.0	513	87	1.8
15S/03E-05C02																	
02/27/74	5701	69	F		61	21	58	3.8	.4	207	111	62	4.0	--	.3	236	
	5701	21	C	7.4 730	3.04 41	1.73 23	2.52 34	.10 1	.01	3.39 45	2.31 31	1.75 23	.06 1	38.0	461	69	1.6
15S/03E-05Q05																	
04/05/74	5701	69	F		66	20	58	4.0	.6	204	147	45	.0	--	.3	250	
	5701	21	C	7.7 721	3.29 44	1.64 22	2.52 33	.10 1	.02	3.34 43	3.06 40	1.27 17	.00	39.0	480	79	1.6
15S/03E-25F01																	
01/15/74	5701	71	F		42	9.0	54	2.4	.2	219	10	50	2.0	--	.4	140	
	5701	22	C	7.1 520	2.10 40	.74 14	2.35 45	.06 1	.01	3.59 68	.21 4	1.41 27	.03 1	47.0	324	0	2.0
3-04.05 20S/08E-08C01																	
03/11/74	5701	64	F		70	11	44	1.7	.3	224	85	29	4.0	.20	.3	220	
	5701	18	C	7.3 610	3.49 55	.90 14	1.91 30	.04 1	.01	3.67 58	1.77 28	.82 13	.06 1	36.0	391	36	1.3
20S/08E-08C02																	
04/23/74	5701	67	F		70	13	40	2.0	.9	218	91	28	5.0	--	.2	228	
	5701	19	C	7.8 580	3.49 55	1.07 17	1.74 27	.05 1	.03	3.58 56	1.89 30	.79 12	.08 1	34.0	391	48	1.2
20S/08E-08F01																	
02/08/74	5701	64	F		66	27	50	2.0	.5	275	112	29	9.0	--	.3	278	
	5701	18	C	7.4 731	3.29 43	2.22 29	2.18 28	.05 1	.02	4.51 58	2.33 30	.82 10	.15 2	36.0	467	49	1.3
20S/08E-08Q03																	
02/08/74	5701	68	F		69	25	52	2.0	.4	277	112	31	9.0	--	.3	276	
	5701	20	C	7.3 758	3.44 44	2.06 26	2.26 29	.05 1	.01	4.54 57	2.33 29	.87 11	.15 2	34.0	471	48	1.4
20S/08E-08Q02																	
04/22/74	5701	68	F		84	32	54	2.0	.6	306	134	35	13.0	--	.2	340	
	5701	20	C	7.4 824	4.19 45	2.63 29	2.35 25	.05 1	.02	5.02 56	2.79 31	.99 11	.21 2	34.0	540	89	1.3
20S/08E-29F01																	
05/02/74	5050				--	--	--	--	--	--	--	640	--	.90	--		
	1045			4220								18.05	--	--			
06/12/74 5050																	
1200	5050			7.8 4260	208 23	186 34	454 19.75	--	0	552	--	744 20.98	7.0 11	1.00	--	1290 832	5.5
21S/08E-05C04																	
06/12/74	5050			8.1 2720	193 29	150 38	250 10.88	--	0	510	--	172 4.85	14.0 23	.20	--	1100 681	3.3
	1140																

TABLE E-1 (CONTINUED)  
MINERAL ANALYSES OF GROUND WATER

DATE TIME	SAMPLER LAB	TEMP	FIELD LABORATORY PH	EC	MINERAL CONSTITUENTS IN					MILLIGRAMS PER LITER MILLIEQUIVALENTS PER LITER					MILLIGRAMS PER LITER				
					CA	MG	NA	K	CO3	PERCENT HCO3	504	CL	VALUE NO3	8 SIO2	F	TDS SUM	TH NCH	SAR	
CENTRAL COASTAL REGION																			
SALINAS VALLEY																			
UPPER VALLEY AREA																			
06/12/74	5050				141	75	136	3.4	0	541	409	59	12.0	.20	--	1230	663		
1035	5050		7.9	1680	7.04	6.17	5.92	.09	.00	8.87	8.52	1.66	.19	--	--	1102	217	2.3	
					37	32	31			46	44	9	1						
CARMEL VALLEY																			
08/29/74	5115				36	29	55	2.1	0	248	21	69	.3	.00	--	378	209		
	5050		8.3	643	1.80	2.38	2.39	.05	.00	4.06	.44	1.95	.00	--	--	334	6	1.7	
					27	36	36	1		63	7	30							
08/29/74	5115	68	F		11	8.4	30	.9	0	82	4.9	35	7.1	.00	--	201	62		
	5050	20	C	8.1	265	.55	.69	1.31	.02	1.34	.10	.99	.11	--	--	138	0	1.7	
					21	27	51	1		53	4	.39	.4						
08/28/74	5115				14	7.0	29	.8	0	80	4.3	38	8.2	.00	--	202	64		
	5050		8.1	280	.70	.58	1.26	.02	.00	1.31	.09	1.07	.13	--	--	141	0	1.6	
					27	23	49	1		50	3	41	5						
09/16/74	5115				71	26	80	2.2	0	232	102	110	4.0	.10	--	575	286		
	5050		8.2	943	3.54	2.14	3.48	.06	.00	3.80	2.12	3.10	.06	--	--	509	94	2.1	
					38	23	38	1		42	23	34	1						
02/26/74	5115				123	27	89	6.1	0	307	191	132	.4	--	.3	814	420		
	5709		6.8	1182	6.14	2.24	3.87	.16	.00	5.03	3.98	3.72	.01	--	14.2	734	168	1.9	
					49	18	31	1		39	31	29							
09/16/74	5115				122	33	94	3.8	0	327	184	135	.3	.10	--	742	440		
	5050		8.2	1250	6.09	2.71	4.09	.10	.00	5.36	3.83	3.81	.00	--	--	733	172	1.9	
					47	21	31	1		41	29	29							
02/27/74	5115				71	19	42	4.2	0	198	112	58	.5	--	.3	461	260		
	5709		7.3	694	3.55	1.64	1.86	.11	.00	3.25	2.33	1.66	.01	--	13.4	420	97	1.2	
					50	23	26	2		45	32	23							
09/13/74	5115				69	21	44	3.0	0	198	117	50	1.6	.00	--	441	258		
	5050		8.1	712	3.44	1.73	1.91	.08	.00	3.25	2.44	1.41	.03	--	--	403	96	1.2	
					48	24	27	1		46	34	20							
09/13/74	5115				77	25	48	4.0	0	178	163	55	1.2	.00	--	520	297		
	5050		8.3	798	3.84	2.06	2.09	.10	.00	2.92	3.39	1.55	.02	--	--	461	149	1.2	
					47	25	26	1		37	43	20							
09/16/74	5115				74	18	45	2.5	0	221	96	50	1.0	.00	--	451	258		
	5050		8.3	697	3.69	1.48	1.96	.06	.00	3.62	2.00	1.41	.02	--	--	395	78	1.2	
					51	21	27	1		51	28	20							
09/13/74	5115				57	20	79	1.7	0	245	58	101	3.0	.10	--	474	226		
	5050		8.2	800	2.84	1.64	3.44	.04	.00	4.02	1.21	2.85	.05	--	--	440	23	2.3	
					36	21	43	1		49	15	35	1						
02/27/74	5115				81	23	52	6.1	0	227	132	68	.8	--	.3	533	300		
	5709		7.0	800	4.07	1.92	2.28	.16	.00	3.72	2.75	1.94	.01	--	12.7	489	114	1.3	
					48	23	27	2		44	33	23							
06/26/74	5115				58	17	36	4.2	0	183	58	46	.3	--	.2	388	219		
	5709		7.2	588	2.91	1.46	1.57	.11	.00	3.00	1.21	1.30	.00	--	11.1	322	69	1.1	
					48	24	26	2		54	22	24							
09/13/74	5115				81	28	43	4.1	0	242	126	55	.1	.00	--	522	319		
	5050		8.2	805	4.04	2.30	1.87	.10	.00	3.97	2.62	1.55	.00	--	--	456	119	1.1	
					49	28	23	1		49	32	19							
09/16/74	5115				72	23	41	3.6	0	209	123	46	.7	.00	--	462	275		
	5050		8.2	716	3.59	1.89	2.56	.09	.00	3.43	2.56	1.30	.01	--	--	412	103	1.1	
					49	26	24	1		47	35	18							
09/16/74	5115				172	70	80	5.3	0	127	646	96	1.1	.10	--	1220	719		
	5050		7.9	1600	8.58	5.76	3.48	.14	.00	2.08	13.45	2.71	.02	--	--	1133	613	1.3	
					48	32	19	1		11	74	15							
09/13/74	5115				175	71	82	5.5	0	117	653	94	.9	.10	--	1220	730		
	5050		7.9	1620	8.73	5.84	3.57	.14	.00	1.92	13.60	2.65	.01	--	--	1139	633	1.3	
					48	32	20	1		11	75	15							



TABLE E-1 (CONTINUED)  
MINERAL ANALYSES OF GROUND WATER

DATE TIME	SAMPLER LAB	TEMP	FIELD LABORATORY PH	EC	MINERAL CONSTITUENTS IN					MILLIGRAMS PER LITER MILLIEQUIVALENTS PER LITER PERCENT REACTANCE VALUE					MILLIGRAMS PER LITER				
					CA	MG	NA	K	CO3	HCO3	SO4	CL	NO3	B	F	TDS SUM	TH NCH	SAR	
.....																			
3																			
3-07																			
CENTRAL COASTAL REGION																			
CARMEL VALLEY																			
09/13/74	5115 5050				104 5.19 45	33 2.71 24	80 3.48 30	5.0 .13 1	0 .00	134 2.20 19	324 6.75 58	96 2.71 23	.0 .00	.10 --	--	785 708	396 285	1.8	
09/13/74	5115 5050				158 7.88 54	48 3.95 27	60 2.61 18	6.0 .15 1	0 .00	105 1.72 12	513 10.68 73	77 2.17 15	2.3 .04	.10 --	--	1030 916	594 506	1.1	
09/13/74	5115 5050				42 2.10 48	15 1.23 28	22 .96 22	3.0 .08 2	0 .00	92 1.51 35	107 2.23 51	21 .59 14	.5 .01	.00 --	--	301 256	168 91	0.7	
09/16/74	5115 5050				133 6.64 49	40 3.29 24	80 3.48 26	4.6 .12 1	0 .00	329 5.39 40	194 4.04 30	144 4.06 30	1.1 .02	.10 --	--	836 759	495 227	1.6	
09/16/74	5115 5050				80 3.99 48	16 1.32 16	68 2.96 36	2.5 .06 1	0 .00	222 3.64 45	93 1.94 24	89 2.51 31	1.8 .03	.00 --	--	505 459	264 84	1.8	
08/27/74	5115 5050				30 1.50 25	14 1.15 19	74 3.22 54	2.2 .06 1	0 .00	128 2.10 36	32 .67 12	103 2.90 50	6.2 .10 2	.00 --	--	394 324	134 28	2.8	
08/27/74	5115 5050				70 3.49 43	18 1.48 18	71 3.09 38	2.7 .07 1	0 .00	235 3.85 48	49 1.02 13	108 3.05 38	7.5 .12 1	.00 --	--	494 442	251 56	2.0	
09/13/74	5115 5050				37 1.85 8	35 2.88 12	425 18.49 79	5.3 .14 1	0 .00	52 .85 4	.0 .00	788 22.22 96	3.3 .05	.00 --	--	1450 1319	236 194	12.0	
08/27/74	5115 5050				25 1.25 12	25 2.06 20	164 7.13 68	3.4 .09 1	0 .00	48 .79 8	26 .54 5	317 8.94 86	6.1 .10 1	.00 --	--	710 590	165 126	5.6	
09/12/74	5115 5050				40 2.00 47	13 1.07 25	25 1.09 26	2.5 .06 1	0 .00	140 2.29 54	59 1.23 29	23 .65 15	2.9 .05 1	.00 --	--	274 234	154 39	0.9	
09/12/74	5115 5050				57 2.84 38	12 .99 13	82 3.57 48	2.2 .06 1	0 .00	150 2.46 33	178 3.71 50	43 1.21 16	.4 .01	.20 --	--	473 449	192 69	2.6	
08/27/74	5115 5050				88 4.39 39	29 2.38 21	97 4.22 38	5.5 .14 1	0 .00	262 4.29 39	146 3.04 28	132 3.72 34	.1 .00	.10 --	--	697 627	341 124	2.3	
09/13/74	5115 5050				109 5.44 48	23 1.89 17	88 3.83 34	3.7 .09 1	0 .00	279 4.57 41	185 3.85 34	98 2.76 25	.0 .00	.00 --	--	696 644	368 138	2.0	
09/13/74	5115 5050				95 4.74 54	16 1.32 15	62 2.70 31	3.7 .09 1	0 .00	232 3.80 43	139 2.89 33	70 1.97 22	6.2 .10 1	.00 --	--	565 506	302 113	1.6	
06/12/74	5115 5709				79 3.95 49	22 1.84 23	50 2.18 27	5.4 .14 2	0 .00	251 4.11 51	90 1.87 23	73 2.07 26	.7 .01	-- 14.9	.3 460	542 460	290 84	1.3	
09/13/74	5115 5050				78 3.89 46	25 2.06 25	54 2.35 28	4.1 .10 1	0 .00	243 3.98 49	104 2.17 27	70 1.97 24	1.6 .03	.00 --	--	518 456	297 99	1.4	
09/13/74	5115 5050				22 1.10 20	21 1.73 31	60 2.61 47	4.1 .10 2	0 .00	134 2.20 40	66 1.37 25	65 1.83 34	2.5 .04 1	.00 --	--	316 306	143 32	2.2	
06/26/74	5115 5709				111 5.54 51	28 2.34 21	66 2.87 26	6.3 .16 1	0 .00	268 4.39 42	148 3.08 30	104 2.93 28	.6 .01	-- 12.6	.3 609	686 609	395 175	1.4	

TABLE E-1 (CONTINUED)  
MINERAL ANALYSES OF GROUND WATER

DATE TIME	SAMPLER LAB	TEMP	FIELD LABORATORY PH	EC	MINERAL CONSTITUENTS IN					MILLIGRAMS PER LITER MILLIEQUIVALENTS PER LITER PERCENT REACTANCE VALUE					MILLIGRAMS PER LITER				
					CA	MG	NA	K	CO3	HCO3	SO4	CL	NO3	S	F	TDS SUM	TH NCM	SAR	
CENTRAL COASTAL REGION																			
CARMEL VALLEY																			
3-07																			
16S/01W-13R01 M																			
09/13/74	5115				68	17	94	1.5	0	237	121	86	2.1	.20	--	536	236		
	5050		8.3	863	3.39 38	1.40 16	4.09 46	.04	.00	3.88 44	2.52 28	2.43 27	.03	--	506	46	2.6		
3-26																			
WEST SANTA CRUZ TERRACE																			
11S/02W-21E01 M																			
08/28/74	5050	67 F	7.5	650	58	5.0	68	2.7	0	149	67	82	2.4	.20	--	408	165		
	1515	19 C	8.3	631	2.89 46	.41 6	2.96 47	.07 1	.00	2.44 39	1.39 22	2.31 37	.04 1	--	359	43	2.3		
11S/02W-21F01 M																			
08/28/74	5050	66 F	7.3	725	81	8.8	49	3.0	0	147	120	67	.6	.10	--	466	238		
	1315	20 C	8.0	696	4.04 58	.72 10	2.13 31	.08 1	.00	2.41 35	2.50 37	1.89 28	.01	--	402	118	1.4		
11S/02W-21F03 M																			
08/28/74	5050	63 F	6.7	725	62	16	56	3.8	0	98	165	60	.7	.00	--	469	220		
	1400	17 C	8.0	688	3.09 44	1.32 19	2.44 35	.10 1	.00	1.61 24	3.44 51	1.69 25	.01	--	412	140	1.6		
3-27																			
SCOTTS VALLEY																			
10S/01W-18J01 M																			
08/27/74	5050	65 F	7.1	445	31	16	41	4.4	0	236	11	16	3.1	.10	--	290	143		
	1335	18 C	8.2	445	1.55 33	1.32 28	1.78 37	.11 2	.00	3.87 84	.23 5	.45 10	.05 1	--	239	0	1.5		
10S/01W-19B02 M																			
08/27/74	5050	63 F	6.7	390	44	12	18	1.0	0	128	63	16	.0	.00	--	270	160		
	1430	17 C	8.0	395	2.20 55	.99 25	.78 20	.03 1	.00	2.10 54	1.31 34	.45 12	.00	--	217	55	0.6		
10S/01W-19E01 M																			
08/27/74	5050	6.3	255	22	5.4	16	2.3	0	37	58	12	11.0	.00	--	183	77			
	1545	7.3	247	1.10 48	.44 19	.70 30	.06 3	.00	.61 26	1.21 52	.34 15	.18 8	--	145	47	0.8			
10S/02W-24E01 M																			
08/27/74	5050	60 F	6.2	218	16	1.9	24	1.4	0	81	5.9	16	9.3	.00	--	152	48		
	1245	16 C	7.5	212	.80 39	.16 8	1.04 51	.04 2	.00	1.33 65	.12 6	.45 22	.15 7	--	114	0	1.5		



TABLE E-2

MINOR ELEMENT ANALYSIS OF GROUND WATER

Sampler and Lab Agency Codes

5050 - Department of Water Resources  
 5115 - Monterey County Flood Control and Water  
 Conservation District  
 5701 - California Water Service Company  
 5709 - California-American Water Company

Abbreviations

TIME - Pacific Standard Time on a 24-hour clock  
 EC - Electrical conductance in micromhos at 25° Celsius  
 TEMP - Water temperature at time of sampling in degrees  
 Fahrenheit (F) and Celsius (C)  
 PH - Measure of acidity (<7) or alkalinity (>7) of water  
 CHROM (ALL) - All chromium  
 CHROM (HEX) - Hexavalent chromium  
 D - Dissolved  
 T - Total

TABLE E-2 (CONTINUED)  
MINOR ELEMENT ANALYSIS OF GROUND WATER

DATE TIME	SAMP LAB	DEPTH	DISCH EC	TEMP PM	ARSENIC	CONSTITUENTS BARIUM CADMIUM	IN MILLIONAMS CHROM (ALL) CHROM (HEX)	PER LITER COPPER IRON	LEAD MANGANESE	MERCURY SELENIUM	SILVER ZINC
1 NORTH COASTAL REGION											
1-14 17N/11W-17N02 M POTTER VALLEY											
08/07/74	5050			63 F		--	0.00 T	0.00 T	0.0 T	--	--
0900	5050		595	7.1	0.00 T	0.00 T	--	0.70 T	0.80 T	--	0.02 T
1-15 15N/12W-34Q01 M UKIAH VALLEY											
08/06/74	5050			60 F		--	0.00 T	0.04 T	0.00 T	--	--
1000	5050		300	6.7	0.00 T	0.00 T	--	5.0 T	0.12 T	--	0.57 T
1-16 13N/11W-07L01 M SANEL VALLEY											
08/07/74	5050			65 F		--	0.00 T	0.00 T	0.00 T	--	--
1215	5050		215	7.0	0.01 T	0.00 T	--	0.14 T	0.01 T	--	0.00 T
1-17 10N/10W-13K05 M ALEXANDER VALLEY											
08/08/74	5050					--	0.00 T	0.00 T	0.0 T	--	--
1130	5050		530	7.3	0.00 T	0.00 T	--	1.3 T	0.19 T	--	0.01 T
1-18 1-18.01 6AN/08W-02E01 M SANTA ROSA VALLEY SANTA ROSA AREA											
08/12/74	5050			65 F		--	0.00 T	0.00 T	0.00 T	--	--
1545	5050		380	7.3	0.01 T	0.00 T	--	0.08 T	0.77 T	--	0.02 T
2 SAN FRANCISCO BAY REGION											
2-n1 04N/06W-21A01 M PETALUMA VALLEY											
08/14/74	5050			67 F		--	0.00 T	0.00 T	0.0 T	--	--
1400	5050		1100	7.3	0.01 T	0.00 T	--	0.31 T	0.02 T	--	1.8 T
2-n2 06N/04W-27L02 M NAPA-SONOMA VALLEY NAPA VALLEY											
07/25/74	5050			68 F		--	0.00 T	0.03 T	0.00 T	--	--
1230	5050		275	7.7	0.00 T	0.00 T	--	0.02 T	0.00 T	--	0.09 T
2-n2.02 05N/06W-24M01 M SONOMA VALLEY											
08/01/74	5050			67 F		--	0.01 T	0.01 T	0.00 T	--	--
1345	5050		275	7.1	0.00 T	0.00 T	--	0.02 T	0.00 T	--	0.01 T
2-n3 05N/02W-27L02 M SUISUN-FAIRFIELD VALLEY											
07/09/74	5050			65 F		--	0.00 T	0.03 T	0.0 T	--	--
1000	5050		1325	7.5	0.00 T	0.00 T	--	0.12 T	0.02 T	--	0.40 T
2-n4 02N/01E-18D01 M PITTSBURG PLAIN											
07/19/74	5050			71 F		--	0.00 T	0.00 T	0.0 T	--	--
1245	5050		825	8.0	0.01 T	0.00 T	--	0.07 T	0.05 T	--	0.08 T
2-n5 01N/01W-03N01 M CLAYTON VALLEY											
07/23/74	5050			65 F		--	0.00 T	0.02 T	0.0 T	--	--
1515	5050		1550	7.1	0.00 T	0.00 T	--	0.06 T	0.00 T	--	0.04 T
2-n6 01N/02W-13P01 M YGNACIO VALLEY											
07/24/74	5050			66 F		--	0.00 T	0.01 T	0.0 T	--	--
1030	5050		1450	7.3	0.01 T	0.00 T	--	0.02 T	0.01 T	--	0.00 T
2-n9 04S/01W-29L12 M SANTA CLARA VALLEY EAST RAY AREA											
07/17/74	5050			63 F		--	0.00 T	0.00 T	0.0 T	--	--
1530	5050		2100	7.4	0.00 T	0.00 T	--	0.03 T	0.00 T	--	0.02 T
2-n9.02 06S/01E-16K04 M SOUTH BAY AREA											
01/30/74	5701			65 F		0.0 T	0.000 T	0.01 T	0.003 T	0.0017 T	--
5701					0.0000 T	0.000 T	--	0.00 T	0.03 T	0.0008 T	0.02 T
06S/01E-17G06 M											
01/30/74	5701			63 F		0.0 T	0.000 T	0.01 T	0.010 T	0.0000 T	--
5701					0.0027 T	0.000 T	--	0.02 T	0.04 T	0.0013 T	0.03 T
07S/01E-07R07 M											
08/06/74	5701				0.0024 T	0.000 T	0.003 T	--	0.00 T	0.0001 T	--
5701							--	--	--	0.0016 T	--
07S/01E-16C07 M											
09/24/74	5701				0.0016 T	0.24 T	0.003 T	0.02 T	0.005 T	0.0000 T	--
5701						0.000 T	--	--	--	0.003 T	0.00 T



TABLE E-2 (CONTINUED)  
MINOR ELEMENT ANALYSIS OF GROUND WATER

DATE TIME	SAMP LAB	DEPTH	DISCH EC	TEMP PH	ARSENIC	CONSTITUENTS BARIUM CADMIUM	IN MILLIGRAMS CHROM (ALL) CHROM (HEX)	PER LITER COPPER IRON	LEAD MANGANESE	MERCURY SELENIUM	SILVER ZINC
2-09 2-09.02 07S/01E-20005 M					SAN FRANCISCO BAY REGION SANTA CLARA VALLEY SOUTH BAY AREA						CONTINUED
08/06/74	5701				0.0018 T	--	0.003 T	--	0.00 T	0.0001 T	--
	5701					0.000 T	--	--	--	0.0024 T	--
07S/01E-21E06 M											
05/15/74	5701				0.0021 T	--	0.004 T	0.00 T	0.000 T	0.0000 T	--
	5701					0.000 T	--	--	--	0.0050 T	0.00 T
07S/01E-22H07 M											
01/30/74	5701			63 F	0.0000 T	0.1 T	0.005 T	0.02 T	0.000 T	0.0000 T	--
	5701					0.000 T	--	0.00 T	0.00 T	0.0097 T	0.00 T
08S/01E-10G05 M											
05/16/74	5701				0.0027 T	--	0.005 T	0.00 T	0.000 T	0.0001 T	--
	5701					0.0000 T	--	--	--	0.0063 T	0.00 T
06S/02W-28N02 M											
03/11/74	5701			65 F	0.0011 T	0.0 T	0.003 T	0.00 T	0.000 T	0.0008 T	--
	5701					0.0000 T	--	0.04 T	0.00 T	0.0004 T	0.00
06S/02W-34N03 M											
07/26/74	5701				0.0000 T	0.12 T	0.002 T	0.00 T	0.02 T	0.0006 T	--
	5701					0.000 T	--	--	--	0.0005 T	0.00 T
07S/01W-22E14 M											
09/30/74	5701				0.0027 T	--	0.002 T	0.00 T	0.00 T	0.0000 T	--
	5701					0.000 T	--	--	--	0.000 T	0.02 T
07S/01W-23R01 M											
03/18/74	5701				0.0000 T	--	0.003 T	0.00 T	0.000 T	0.0001 T	--
	5701					0.000 T	--	--	--	0.0002 T	0.00 T
07S/01W-23H05 M											
03/18/74	5701				0.0029 T	--	0.002 T	0.00 T	0.000 T	0.0001 T	--
	5701					0.000 T	--	--	--	0.0002 T	0.00 T
2-10 03S/02E-07P03 M					LIVERMORE VALLEY						
05/06/74	5701				0.0044 T	--	0.016 T	0.00 T	0.000 T	--	--
	5701					0.000 T	--	--	--	0.0018 T	0.03 T
03S/02E-09L01 M											
09/05/74	5701				0.0000 T	0.18 T	0.030 T	0.01 T	0.00 T	0.0002 T	--
	5701					0.000 T	--	--	--	0.000 T	0.08 T
03S/02E-17D01 M											
07/18/74	5050			70 F	0.01 T	--	0.01 T	0.00 T	0.0 T	--	--
1245	5050		950	7.5		0.00 T	--	0.04 T	0.00 T	--	0.06 T
2-22 05S/06W-11E01 M					HALF MOON BAY TERRACE						
08/15/74	5050			62 F	0.00 T	--	0.01 T	0.00 T	0.0 T	--	--
1200	5050		640	6.7		0.00 T	--	0.01 T	0.00 T	--	0.01 T
2-24 07S/05W-15F01 M					SAN GREGORIO VALLEY						
08/29/74	5050			65 F	0.00 T	--	0.00 T	0.00 T	0.0 T	--	--
1400	5050		1275	7.3		0.00 T	--	6.4 T	0.10 T	--	0.06 T
2-26 08S/05W-10E01 M					PESCADERO VALLEY						
08/29/74	5050			61 F	0.00 T	--	0.00 T	0.06 T	0.0 T	--	--
1115	5050		975	7.3		0.00 T	--	14. T	1.3 T	--	0.02 T
2-R0 03S/05W-20K02 M					MISCELLANEOUS AREA						
02/12/74	5701			64 F	0.0018 T	0.0 T	0.025 T	0.00 T	0.000 T	0.0005 T	--
	5701					0.000 T	--	0.00 T	0.00 T	0.0022 T	0.02 T
03S/05W-20K06 M											
09/12/74	5701				0.0075 T	--	0.002 T	0.00 T	0.00 T	0.0000 T	--
	5701					0.000 T	--	--	--	--	0.05 T

TABLE E-2 (CONTINUED)  
MINOR ELEMENT ANALYSIS OF GROUND WATER

DATE TIME	SAMP LAB	DEPTH	DISCH EC	TEMP PH	ARSENIC	CONSTITUENTS IN MILLIGRAMS PER LITER BARIUM CADMIUM	CHROM (ALL) CHROM (HEX)	COPPER IRON	LEAD MANGANESE	MERCURY SELENIUM	SILVER ZINC
CENTRAL COASTAL REGION SQUEL VALLEY											
3 J-n1 11S/01W-13A01 M											
08/28/74 0830	5050 5050		570	68 F 8.1		-- 0.00 T	0.00 T --	0.00 T 0.35 T	0.0 T 0.07 T	-- --	-- 0.80 T
3-n4 J-n4.01 14S/03E-20F02 M											
SALINAS VALLEY PRESSURE AREA											
02/27/74 5701 5701	5701 5701		451	72 F 7.4	--	0.0 --	-- --	0.00 0.00	-- 0.00	-- --	-- 0.03
04/05/74 5701 5701	5701 5701				0.0008	0.000	0.005	0.00 --	0.000 --	0.0004 0.0012	-- 0.24
14S/03E-21L01 M											
02/27/74 5701 5701	5701 5701		461	73 F 7.1	--	0.0 --	-- --	0.00 0.00	-- 0.00	-- --	-- 0.01
14S/03E-22E01 M											
01/15/74 5701 5701	5701 5701		532	70 F 7.0	--	0.0 --	-- --	0.00 0.00	-- 0.00	-- --	-- 0.05
14S/03E-28M02 M											
01/15/74 5701 5701	5701 5701		1035	69 F 7.0	0.004	0.0 0.000	0.004 --	0.00 0.00	0.000 0.00	0.0000 0.0007	-- 0.04
14S/03E-28M03 M											
09/18/74 5701 5701	5701 5701		1042	67 F 7.4	--	-- --	-- --	0.00 0.00	-- 0.00	-- --	-- 0.02
14S/03E-28N01 M											
04/05/74 5701 5701	5701 5701		971	69 F 7.1	--	-- --	-- --	0.01 0.00	-- 0.00	-- --	-- 0.00
14S/03E-31L01 M											
01/15/74 5701 5701	5701 5701		560	69 F 7.5	--	0.0 --	-- --	0.00 0.02	-- 0.00	-- --	-- 0.05
14S/03E-32B01 M											
07/25/74 5701 5701	5701 5701		1184	71 F 7.2	--	-- --	-- --	0.01 0.00	-- 0.01	-- --	-- 1.38
14S/03E-32N04 M											
02/27/74 5701 5701	5701 5701		661	72 F 7.7	--	0.0 --	-- --	0.00 0.00	-- 0.00	-- --	-- 0.02
14S/03E-33G01 M											
07/25/74 5701 5701	5701 5701		945	67 F 7.2	--	-- --	-- --	0.00 0.00	-- 0.00	-- --	-- 0.06
14S/03E-33001 M											
09/18/74 5701 5701	5701 5701		1082	71 F 7.2	--	-- --	-- --	0.01 0.00	-- 0.00	-- --	-- 0.14
14S/03E-34C01 M											
04/05/74 5701 5701	5701 5701		438	70 F 7.2	--	-- --	-- --	0.00 0.00	-- 0.00	-- --	-- 0.00
14S/03E-35N01 M											
04/05/74 5701 5701	5701 5701		464	68 F 7.2	--	-- --	-- --	0.00 0.00	-- 0.00	-- --	-- 0.01
07/25/74 5701 5701	5701 5701				0.0007	0.05 0.000	0.005 --	0.00 --	0.000 --	0.0002 0.0004	-- 0.00
15S/03E-03C01 M											
02/27/74 5701 5701	5701 5701		980	72 F 7.0	--	0.0 --	-- --	0.00 0.00	-- 0.00	-- --	-- 0.02
15S/03E-03N02 M											
07/25/74 5701 5701	5701 5701		1010	7.6	--	-- --	-- --	0.1 0.00	-- 0.00	-- --	-- 0.03
15S/03E-03R02 M											
01/15/74 5701 5701	5701 5701		811	69 F 7.3	--	0.0 --	-- --	0.00 0.02	-- 0.00	-- --	-- 0.05
15S/03E-05C02 M											
02/27/74 5701 5701	5701 5701		730	69 F 7.4	--	0.0 --	-- --	0.00 0.00	-- 0.00	-- --	-- 0.00
15S/03E-05Q05 M											
04/05/74 5701 5701	5701 5701		721	69 F 7.7	--	-- --	-- --	0.00 0.00	-- 0.00	-- --	-- 0.01



TABLE E-2 (CONTINUED)  
MINOR ELEMENT ANALYSIS OF GROUND WATER

DATE TIME	SAMP LAB	DEPTH	DISCH EC	TEMP PH	ARSENIC	CONSTITUENTS BARIUM CADMIUM	IN MILLIGRAMS CHROM (ALL) CHROM (HEX)	PER LITER COPPER IRON	LEAD MANGANESE	MERCURY SELENIUM	SILVER ZINC
CENTRAL COASTAL REGION SALINAS VALLEY PRESSURE AREA											
CONTINUED											
01/15/74	5701		520	71 F	--	0.0	--	0.00	--	--	--
	5701			7.1	--	--	--	0.02	0.00	--	0.04
UPPER VALLEY AREA											
03/11/74	5701			64 F	0.00 T	0.0 T	0.001 T	0.01 T	0.000 T	0.0001 T	--
	5701					0.00 T	--	0.00 T	0.00 T	0.0003 T	0.00 T
20S/C08E-08C02 M											
04/23/74	5701			67 F	--	--	--	0.00 T	--	--	--
	5701				--	--	--	0.02 T	0.00 T	--	0.03 T
20S/C08E-08F01 M											
02/08/74	5701			64 F	--	0.0 T	--	0.01 T	--	--	--
	5701				--	--	--	0.00 T	0.00 T	--	0.00 T
20S/C08E-08Q02 M											
04/22/74	5701			68 F	--	--	--	0.00 T	--	--	--
	5701				--	--	--	0.02 T	0.00 T	--	0.03 T
20S/C08E-08Q03 M											
02/08/74	5701			68 F	--	0.0 T	--	0.01 T	--	--	--
	5701				--	--	--	0.00 T	0.00	--	0.02 T
CARMEL VALLEY											
09/12/74	5115				--	--	--	--	--	--	--
	5709				--	--	--	0.18 D	--	--	--
16S/C01E-17J02 M											
02/26/74	5115				--	--	--	--	--	--	--
	5709				--	--	--	2.59 D	0.41 D	--	--
09/12/74	5115				--	--	--	--	--	--	--
	5709				--	--	--	2.71 D	--	--	--
16S/C01E-17L01 M											
02/27/74	5115				--	--	--	--	--	--	--
	5709				--	--	--	2.05 D	0.16 D	--	--
09/13/74	5115				--	--	--	--	--	--	--
	5709				--	--	--	2.90 D	--	--	--
16S/C01E-17L03 M											
09/13/74	5115				--	--	--	--	--	--	--
	5709				--	--	--	2.71 D	--	--	--
16S/C01E-17R01 M											
09/16/74	5115				--	--	--	--	--	--	--
	5709				--	--	--	3.55 D	--	--	--
16S/C01E-18F02 M											
09/13/74	5115				--	--	--	--	--	--	--
	5709				--	--	--	6.30 D	--	--	--
16S/C01E-18J01 M											
02/27/74	5115				--	--	--	--	--	--	--
	5709				--	--	--	3.87 D	0.41 D	--	--
16S/C01E-18P01 M											
06/26/74	5115				--	--	--	--	--	--	--
	5709				--	--	--	0.36 D	0.05 D	--	--
09/13/74	5115				--	--	--	--	--	--	--
	5709				--	--	--	0.75 D	--	--	--
16S/C01E-18Q01 M											
09/16/74	5115				--	--	--	--	--	--	--
	5709				--	--	--	4.35 D	--	--	--
16S/C01E-22C01 M											
09/12/74	5115				--	--	--	--	--	--	--
	5709				--	--	--	8.52 D	--	--	--
16S/C01E-22E01 M											
09/12/74	5115				--	--	--	--	--	--	--
	5709				--	--	--	6.31 D	--	--	--
16S/C01E-22M01 M											
09/12/74	5115				--	--	--	--	--	--	--
	5709				--	--	--	12.55 D	--	--	--
16S/C01E-23K01 M											
09/12/74	5115				--	--	--	--	--	--	--
	5709				--	--	--	18.22 D	--	--	--

TABLE E-2 (CONTINUED)  
MINOR ELEMENT ANALYSIS OF GROUND WATER

DATE TIME	SAMP LAB	DEPTH	DISCH EC	TEMP PH	ARSENIC	CONSTITUENTS BARIUM CADMIUM	IN MILLIGRAMS CHROM (ALL) CHROM (HEX)	PER LITER COPPER IRON	LEAD MANGANESE	MERCURY SELENIUM	SILVER ZINC
3 3-07 16S/01E-23L01 M					CENTRAL COASTAL REGION CARMEL VALLEY						
09/12/74	5115 5709				--	--	--	2.30 D	--	--	--
16S/01E-24M02 M											
09/16/74	5115 5709				--	--	--	3.92 D	--	--	--
16S/01E-25B01 M											
09/16/74	5115 5709				--	--	--	0.34 D	--	--	--
16S/02E-29B01 M											
09/12/74	5115 5709				--	--	--	0.05 D	--	--	--
16S/02E-29B01 M											
09/12/74	5115 5709				--	--	--	0.32 D	--	--	--
17S/03E-21H01 M											
09/13/74	5115 5709				--	--	--	5.96 D	--	--	--
16S/04E-06A01 M											
09/13/74	5115 5709				--	--	--	0.66 D	--	--	--
16S/01W-13L01 M											
06/12/74	5115 5709				--	--	--	2.45 D	0.54 D	--	--
16S/01W-13L03 M											
09/13/74	5115 5709				--	--	--	6.05 D	--	--	--
16S/01W-13Q02 M											
06/26/74	5115 5709				--	--	--	3.00 D	0.63 D	--	--
16S/01W-13R01 M											
09/13/74	5115 5709				--	--	--	2.30 D	--	--	--
3-26 11S/02W-21F03 M					WEST SANTA CRUZ TERRACE						
08/28/74	5050 1400	5050	725	63 F 6.7	0.00 T	-- 0.00 T	0.00 T --	0.00 T 3.0 T	0.0 T 0.23 T	--	-- 0.02 T
3-27 10S/01W-19B02 M					SCOTTS VALLEY						
08/27/74	5050 1430	5050	390	63 F 6.7	0.00 T	-- 0.00 T	0.00 T --	0.00 T 0.52 T	0.00 T 0.04 T	--	-- 0.04 T



TABLE E-3

SUPPLEMENTAL MINOR ELEMENT ANALYSIS OF GROUND WATER

Sampler and Lab Agency Codes

5050 - Department of Water Resources

5701 - California Water Service Company

Abbreviations

TIME - Pacific Standard Time on a 24-hour clock

EC - Electrical conductance in micromhos at 25<sup>o</sup> Celsius

TEMP - Water temperature at time of sampling in degrees Fahrenheit (F) and Celsius (C)

PH - Measure of acidity (<7) or alkalinity (>7) of water

D - Dissolved

T - Total

TABLE E-3 (CONTINUED)  
SUPPLEMENTAL MINOR ELEMENT ANALYSIS OF GROUND WATER

DATE TIME	SAMP LAB	EC	TEMP PH	ALUMINUM	CONSTITUENTS IN MILLIGRAMS ANTIMONY BERYLLIUM	BISMUTH COBALT	PER LITER GALLIUM GERMANIUM	LITHIUM MOLYBDENUM	NICKEL STRONTIUM	TITANIUM VANADIUM
3 3-04 3-04.01 14S/03E-20F02 M CENTRAL COAST SALINAS VALLEY PRESSURE AREA										
02/27/74	5701		72 F		--	--	--	0.015	--	--
	5701	451	7.4	--	--	--	--	--	0.16	--
14S/03E-21L01 M										
02/27/74	5701		73 F		--	--	--	0.021	--	--
	5701	461	7.1	--	--	--	--	--	0.18	--
14S/03E-22E01 M										
01/15/74	5701		70 F		--	--	--	0.030	--	--
	5701	532	7.0	--	--	--	--	--	0.26	--
14S/03E-28M02 M										
01/15/74	5701		69 F		--	--	--	0.020	--	--
	5701	1035	7.0	--	--	--	--	--	0.57	--
14S/03E-28M03 M										
09/18/74	5701		67 F		--	--	--	0.024	--	--
	5701	1042	7.4	--	--	--	--	--	0.53	--
14S/03E-28N01 M										
04/05/74	5701		69 F		--	--	--	0.022	--	--
	5701	971	7.1	--	--	--	--	--	0.48	--
14S/03E-31L01 M										
01/15/74	5701		69 F		--	--	--	0.011	--	--
	5701	560	7.5	--	--	--	--	--	0.27	--
14S/03E-32R01 M										
07/25/74	5701		71 F		--	--	--	0.015	--	--
	5701	1184	7.2	--	--	--	--	--	0.31	--
14S/03E-32N04 M										
02/27/74	5701		72 F		--	--	--	0.016	--	--
	5701	661	7.7	--	--	--	--	--	0.29	--
14S/03E-33G01 M										
07/25/74	5701		67 F		--	--	--	0.012	--	--
	5701	945	7.2	--	--	--	--	--	0.22	--
14S/03E-33Q01 M										
09/18/74	5701		71 F		--	--	--	0.032	--	--
	5701	1082	7.2	--	--	--	--	--	0.60	--
14S/03E-34C01 M										
04/05/74	5701		70 F		--	--	--	0.008	--	--
	5701	436	7.2	--	--	--	--	--	0.16	--
14S/03E-35N01 M										
04/05/74	5701		68 F		--	--	--	0.008	--	--
	5701	464	7.2	--	--	--	--	--	0.18	--
15S/03E-03C01 M										
02/27/74	5701		72 F		--	--	--	0.009	--	--
	5701	980	7.0	--	--	--	--	--	0.33	--
15S/03E-03N02 M										
07/25/74	5701		76 F		--	--	--	0.015	--	--
	5701	1010	7.6	--	--	--	--	--	0.30	--
15S/03E-03R02 M										
01/15/74	5701		69 F		--	--	--	0.026	--	--
	5701	811	7.3	--	--	--	--	--	0.52	--
15S/03E-05C02 M										
02/27/74	5701		69 F		--	--	--	0.020	--	--
	5701	730	7.4	--	--	--	--	--	0.33	--
15S/03E-05Q05 M										
04/05/74	5701		69 F		--	--	--	0.012	--	--
	5701	721	7.7	--	--	--	--	--	0.36	--
15S/03E-25F01 M										
01/15/74	5701		71 F		--	--	--	0.030	--	--
	5701	520	7.1	--	--	--	--	--	0.31	--
3-04.05 20S/00E-08C01 M UPPER VALLEY AREA										
03/11/74	5701		64 F		--	--	--	0.018 T	--	--
	5701			--	--	--	--	--	0.43 T	--
20S/00E-08C02 M										
04/23/74	5701		67 F		--	--	--	0.025 T	--	--
	5701			--	--	--	--	--	0.45	--



TABLE E-3 (CONTINUED)  
SUPPLEMENTAL MINOR ELEMENT ANALYSIS OF GROUND WATER

DATE TIME	SAMP LAB	EC	TEMP PH	ALUMINUM	ANTIMONY BERYLLIUM	BISMUTH COBALT	PER LITER GALLIUM GERMANIUM	LITHIUM MOLYBDENUM	NICKEL STRONTIUM	TITANIUM VANADIUM
	3 3-04 3-04.05 20S/08E-08F01		M							
02/08/74	5701		64 F	--	--	--	--	0.010 T	--	--
	5701			--	--	--	--	--	0.33 T	--
	20S/08E-08Q02		M							
04/22/74	5701		68 F	--	--	--	--	0.028 T	--	--
	5701			--	--	--	--	--	0.59 T	--
	20S/08E-08Q03		M							
02/08/74	5701		68 F	--	--	--	--	0.013 T	--	--
	5701			--	--	--	--	--	0.36 T	--

CONTINUED

## Appendix F

### WASTE WATER DATA

Appendix F, "Waste Water Data", which appeared in certain volumes of Bulletin No. 130 series, has been discontinued. For information regarding waste water, the reader is referred to the recently reactivated Bulletin No. 68 series: "Inventory of Waste Water Production and Waste Water Reclamation Practices in California".

Please note the data presented in Bulletin No. 68 are on a calendar year basis rather than a water year basis as is the case in Bulletin No. 130.



10 8764











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